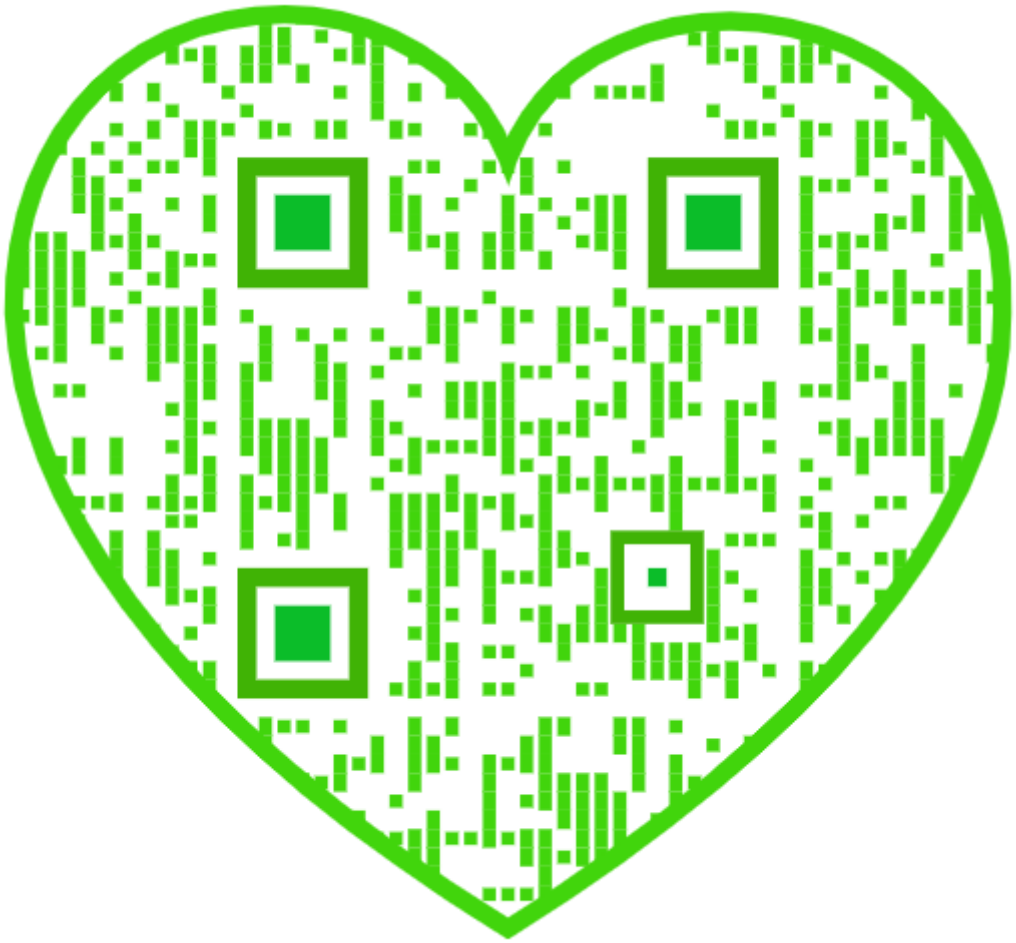
GV 491
.W25
1920
Copy 1



A.G. SPALDING & BROS.

MAINTAIN THEIR OWN HOUSES
FOR DISTRIBUTING THE

SPALDING

COMPLETE LINE OF

ATHLETIC GOODS

IN THE FOLLOWING CITIES.

NEW YORK Downtown 124-128 Nassau St. Uptown 523 Fifth Avenue	**CHICAGO** 211-217 So. State St.	**SAN FRANCISCO** 156-158 Geary Street
NEWARK, N. J. 589 Broad Street	**INDIANAPOLIS, IND.** 136 N. Pennsylvania St.	**OAKLAND, CAL.** 416 Fourteenth St.
PHILADELPHIA, PA. 1210 Chestnut Street	**CINCINNATI, O.** 119 East Fifth Avenue	**SEATTLE, WASH.** 1204 Second Avenue
BOSTON, MASS. 74 Summer Street	**CLEVELAND, O.** 1117 Euclid Avenue	**LOS ANGELES, CAL.** 435 South Spring St.
	COLUMBUS, O. 107 South High Street	**PORTLAND, ORE.** Broadway at Alder
		SALT LAKE CITY, UTAH 331 Main Street
PITTSBURGH, PA. 608 Wood Street	**DETROIT, MICH.** 619 Woodward Ave	**ST LOUIS, MO** 823 Locust Street
BUFFALO, N. Y. 611 Main Street	**WASHINGTON, D. C.** 613 14th Street, N W	**KANSAS CITY, MO.** 1005 Grand Avenue
SYRACUSE, N. Y. 357 So. Warren Street	**LOUISVILLE, KY** 328 West Jefferson St	**MILWAUKEE, WIS.** 379 East Water Street
		DES MOINES, IA. 803 Locust Street
ROCHESTER, N. Y. 40 Clinton Ave., North	**ATLANTA, GA.** 74 N. Broad Street	**DENVER, COL.** 622 Sixteenth Street
ALBANY, N. Y. 52 State Street	**NEW ORLEANS, LA.** 130 Carondelet Street	**MINNEAPOLIS, MINN.** 52 Seventh St., South
BALTIMORE, MD. 110 E. Baltimore St.	**DALLAS, TEX.** 1518 Main Street	**ST PAUL, MINN.** 386 Minnesota Street
LONDON, ENGLAND 317-318, High Holborn, W C. 78, Cheapside, E. C	**MANCHESTER, ENG.** 4, Oxford St. and 1, Lower Mosley St	**MONTREAL, CANADA** 369-71 St Catherine St., W
	BRISTOL, ENG. 42, High Street	**TORONTO, CANADA** 207 Yonge Street
LIVERPOOL 72, Lord Street	**EDINBURGH, SCOT** 3 So. Charlotte St., (Cor. Princes St	**SYDNEY AUSTRALIA** 204 Clarence Street
BIRMINGHAM, ENG. New Street House	**GLASGOW, SCOTLAND** 68 Buchanan Street	**PARIS, FRANCE** 25-27 Rue Tronchet

Communications directed to A. G. SPALDING & BROS., at any of the above addresses will receive prompt attention.

THE SPALDING

TRADE MARK, QUALITY AND SELLING POLICY CONSTITUTE
THE SOLID FOUNDATION OF THE SPALDING BUSINESS

GV
W

SPALDING ATHLETIC LIBRARY

SPALDING OFFICIAL ANNUALS

No. 9.	SPALDING'S OFFICIAL INDOOR BASE BALL GUIDE.	Price 10c.
No. 12A.	SPALDING'S OFFICIAL ATHLETIC RULES (A. A. U.).	Price 10c.
No. 1R.	SPALDING'S OFFICIAL ATHLETIC ALMANAC.	Price 25c.
No. 3R.	SPALDING'S OFFICIAL GOLF GUIDE.	Price 25c.
No. 6.	SPALDING'S OFFICIAL ICE HOCKEY GUIDE.	Price 25c.
No. 7A.	SPALDING'S OFFICIAL WOMEN'S BASKET BALL GUIDE.	Price 25c.
No. 55R.	SPALDING'S OFFICIAL SOCCER FOOT BALL GUIDE.	Price 25c.
No. 57R.	SPALDING'S LAWN TENNIS ANNUAL.	Price 25c.
No. 59R.	SPALDING'S OFFICIAL BASE BALL RECORD.	Price 25c.
No. 100R.	SPALDING'S OFFICIAL BASE BALL GUIDE.	Price 25c.
No. 200R.	SPALDING'S OFFICIAL FOOT BALL GUIDE.	Price 25c.
No. 700R.	SPALDING'S OFFICIAL BASKET BALL GUIDE.	Price 25c.
No. 1C.	SPALDING'S OFFICIAL BASE BALL GUIDE (Canadian Edition)	Price 25c.

(Prices subject to change without notice.)

Specially Bound Series of Athletic Handbooks

In flexible binding. Mailed postpaid on receipt of 75 cents each number.

No. 501L.	STROKES AND SCIENCE OF LAWN TENNIS
No. 502L.	HOW TO PLAY GOLF
No. 503L.	HOW TO PLAY FOOT BALL
No. 504L.	ART OF SKATING
No. 505L.	GET WELL—KEEP WELL
No. 506L.	HOW TO LIVE 100 YEARS
No. 507L.	HOW TO WRESTLE
No. 509L.	BOXING
No. 510L.	DUMB BELL EXERCISES
No. 511L.	JIU JITSU
No. 512L.	SPEED SWIMMING
No. 513L.	WINTER SPORTS
No. 514L.	HOW TO BOWL
No. 516L.	SCHOOL TACTICS AND MAZE RUNNING; CHILDREN'S GAMES.
No. 517L.	TEN AND TWENTY MINUTE EXERCISES
No. 518L.	INDOOR AND OUTDOOR GYMNASTIC GAMES
No. 519L.	SPALDING'S OFFICIAL BASE BALL GUIDE
No. 520L.	SPALDING'S OFFICIAL FOOT BALL GUIDE
No. 521L.	SPALDING'S OFFICIAL BASKET BALL GUIDE
No. 522L.	GOLF FOR GIRLS
No. 523L.	HOW TO PLAY BASE BALL: HOW TO MANAGE A TEAM, ETC.
No. 524L.	SPALDING'S LAWN TENNIS ANNUAL
No. 525L.	HOW TO PITCH.
No. 526L.	HOW TO BAT

In addition to above, any 25 cent "Red Cover" book listed in Spalding's Athletic Library will be bound in flexible binding for 75 cents each; or any two 10 cent "Green Cover" or "Blue Cover" books in one volume for 75 cents.

(Continued on the next page.)

ANY OF THE ABOVE BOOKS MAILED POSTPAID UPON RECEIPT OF PRICE

7-13-20

SPALDING ATHLETIC LIBRARY

Red Cover Series, 25c. Blue Cover Series, 10c. Green Cover Series, 10c.

Group I. Base Ball

"Blue Cover" Series, each number 10c.

No. 202 How to Play Base Ball
No. 219 Ready Reckoner of Base Ball Percentages
No. 224 How to Play the Outfield
No. 225 How to Play First Base
No 226 How to Play Second Base
No 227 How to Play Third Base
No. 228 How to Play Shortstop
No. 229 How to Catch
No. 232 How to Run Bases
No. 350 How to Score
No. 365 Base Ball for Boys ("Beginners")
No. 9 Spalding's Official Indoor Base Ball Guide

"Red Cover" Series, each number 25c.

No. 59R. Official Base Ball Record
No. 79R. How to Pitch
No. 80R. How to Bat
No. 81R. How to Umpire
No. 82R. Knotty Base Ball Problems
No. 83R How to Organize a Base Ball League
How to Organize a Base Ball Club
How to Manage a Base Ball Club
How to Train a Base Ball Team
How to Captain a Team
Technical Base Ball Terms
No. 100R. Spalding's Official Base Ball Guide
No. 1C Spalding's Official Base Ball Guide. Canadian Edition

Group II. Foot Ball

"Red Cover" Series, each number 25c.

No. 200R. Spalding's Official Foot Ball Guide
No. 47R. How to Play Foot Ball
No. 55R. Spalding's Official Soccer Foot Ball Guide
No. 39R. How to Play Soccer

Group III. Tennis

"Blue Cover" Series, each number 10c.

No. 157 How to Play Lawn Tennis

"Red Cover" Series, each number 25c.

No. 2R. Strokes and Science of Lawn Tennis
No. 26R. Official Handbook National Squash Tennis Association
No. 42R. Davis Cup Contests in Australasia
No. 57R. Spalding's Lawn Tennis Annual
No. 76R. Tennis for Girls
No. 84R. Tennis Errors and Remedies
No. 85R. How to Play Tennis; for Girls

Group IV. Golf

"Green Cover" Series, each number 10c.

No. 2P. How to Learn Golf

"Red Cover" Series, each number 25c.

No. 3R. Spalding's Official Golf Guide
No. 4R. How to Play Golf
No. 63R. Golf for Girls

Group V. Basket Ball

"Blue Cover" Series, each number 10c.

No. 7A Spalding's Official Women's Basket Ball Guide
No. 193 How to Play Basket Ball

"Red Cover" Series, each number 25c.

No. 700R. Spalding's Official Basket Ball Guide

Group VI. Skating and Winter Sports

"Blue Cover" Series, each number 10c.

No. 14 Curling

"Red Cover" Series, each number 25c.

No. 6 Spalding's Official Ice Hockey
No. 8R. The Art of Skating [Guide
No. 20R. How to Play Ice Hockey
No. 28R. Winter Sports
No. 72R. Figure Skating for Women

Group VII. Track and Field Athletics

"Blue Cover" Series, each number 10c.

No. 12A Spalding's Official Athletic Rules (A. A. U.)
No. 27 College Athletics
No. 87 Athletic Primer
No. 156 Athletes' Guide
No. 182 All Around Athletics
No. 255 How to Run 100 Yards
No. 317 Marathon Running
No. 342 Walking for Health and Competition

"Green Cover" Series, each number 10c.

No. 3P. How to Become an Athlete By James E. Sullivan
No. 4P. How to Sprint

"Red Cover" Series, each number 25c.

No. 1R. Spalding's Official Athletic Almanac
No. 45R. Intercollegiate Official Handbook
No. 48R. Distance and Cross Country Running
No. 70R. How to Become a Weight Thrower
No. 77R. A. E. F. Athletic Almanac and Inter-Allied Games.
No. 88R. Official Handbook Canadian A.A.U.

(Continued on the next page. Prices subject to change without notice.)

ANY OF THE ABOVE BOOKS MAILED POSTPAID UPON RECEIPT OF PRICE

7-19-20

SPALDING ATHLETIC LIBRARY

Red Cover Series, 25c. Blue Cover Series, 10c. Green Cover Series, 10c.

Group VIII. School Athletics

"Blue Cover" Series, each number 10c.

No. 246 Athletic Training for Schoolboys

"Red Cover" Series, each number 25c.

No. 61R. School Tactics and Maze Running; Children's Games
No. 66R. Calisthenic Drills and Fancy Marching and Physical Training for the School and Class Room
No. 74R. Schoolyard Athletics

Group IX. Water Sports

"Blue Cover" Series, each number 10c.

No. 128 How to Row
No. 129 Water Polo

"Red Cover" Series, each number 25c.

No. 36R. Speed Swimming
No. 37R. How to Swim
No. 60R. Canoeing and Camping

Group X. Athletic Games for Women and Girls

"Blue Cover" Series, each number 10c.

No. 7A Spalding's Official Women's Basket Ball Guide

"Red Cover" Series, each number 25c.

No. 38R. Field Hockey
No. 41R. Newcomb
No. 63R. Golf for Girls
No. 69R. Girls and Athletics

Group XI. Lawn and Field Games

"Blue Cover" Series, each number 10c.

No. 170 Push Ball
No. 180 Ring Hockey
No. 199 Equestrian Polo
No. 201 How to Play Lacrosse

"Red Cover" Series, each number, 25c.

No. 6R. Cricket, and How to Play It
No. 43R. Archery, Roque, Croquet, English Croquet, Lawn Hockey, Tether Ball, Clock Golf, Golf-Croquet, Hand Tennis, Hand Polo, Wicket Polo, Badminton, Drawing Room Hockey, Garden Hockey, Basket Goal, Pin Ball, Cricket
No. 86R. Quoits, Lawn Bowls, Horseshoe Pitching and "Boccie."

Group XII. Miscellaneous Games

"Blue Cover" Series, each number 10c.

No. 13 American Game of Hand Ball
No. 364 Volley Ball Guide—new rules

"Red Cover" Series, each number 25c.

No. 49R. How to Bowl
No. 50R. Court Games

Group XIII. Manly Sports

"Blue Cover" Series, each number 10c.

No. 282 Roller Skating Guide

"Red Cover" Series, each number 25c.

No. 11R. Fencing Foil Work Illustrated
No. 19R. Professional Wrestling
No. 21R. Jiu Jitsu
No. 25R. Boxing
No. 30R. The Art of Fencing
No. 65R. How to Wrestle
No. 78R. How to Punch the Bag

Group XIV. Calisthenics

"Red Cover" Series, each number 25c.

No. 10R. Single Stick Drill
No. 16R. Team Wand Drill
No. 22R. Indian Clubs and Dumb Bells and Pulley Weights
No. 24R. Dumb Bell Exercises
No. 73R. Graded Calisthenics and Dumb Bell Drills

Group XV. Gymnastics

"Blue Cover" Series, each number 10c.

No. 124 How to Become a Gymnast
No. 254 Barnjum Bar Bell Drill
No. 287 Fancy Dumb Bell and Marching Drills

"Red Cover" Series, each number 25c.

No. 14R. Trapeze, Long Horse and Rope Exercises
No. 34R. Grading of Gym. Exercises
No. 40R. Indoor and Outdoor Gymnastic Games
No. 52R. Pyramid Building
No. 56R. Tumbling for Amateurs and Ground Tumbling
No. 67R. Exercises on the Side Horse; Exercises on the Flying Rings
No. 68R. Horizontal Bar Exercises; Exercises on Parallel Bars

Group XVI. Home Exercising

"Blue Cover" Series, each number 10c.

No. 161 Ten Minutes' Exercise for Busy Men
No. 185 Hints on Health
No. 325 Twenty-Minute Exercises

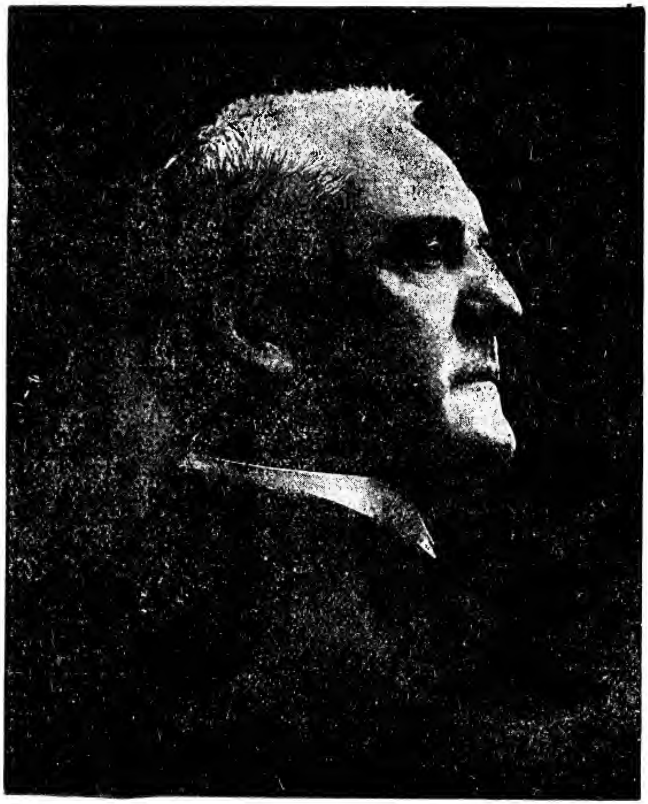
"Red Cover" Series, each number 25c.

No. 7R. Physical Training Simplified
No. 9R. How to Live 100 Years
No. 23R. Get Well; Keep Well
No. 33R. Tensing Exercises
No. 51R. 285 Health Answers
No. 54R. Medicine Ball Exercises, Indigestion Treated by Gymnastics, Physical Education and Hygiene
No. 62R. The Care of the Body
No. 64R. Muscle Building; Health by Muscular Gymnastics

(Prices subject to change without notice.)

ANY OF THE ABOVE BOOKS MAILED POSTPAID UPON RECEIPT OF PRICE

7-19-20



EDWARD B. WARMAN.

SPALDING "RED COVER" SERIES OF
ATHLETIC HANDBOOKS
No 22R.

SCIENTIFIC PHYSICAL TRAINING
SERIES

INDIAN CLUB EXERCISES

BY
EDWARD B. WARMAN
LOS ANGELES, CALIFORNIA

Author of The Care of the Body. Physical Training Simplified. The Voice—How to Train It, How to Care for It; Gestures and Attitudes; Delsarte Philosophy of Expression. How to Read, Recite and Impersonate. Practical Orthoepy and Critique.

PUBLISHED BY
AMERICAN SPORTS PUBLISHING COMPANY
45 ROSE STREET, NEW YORK

COPYRIGHT, 1920
BY THE
AMERICAN SPORTS PUBLISHING COMPANY
NEW YORK

FEB -2 1921

©CLA605625

WARMAN'S INDIAN CLUB SYSTEM

ONE CLUB

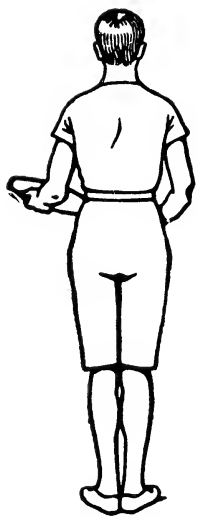
GENERAL DIRECTIONS

Grasp the club firmly, but easily, the little finger resting against the knob. As these exercises are intended for physical development and not for the purpose of displaying "fancy" or "snake movements"—very good in their way and for the purpose designed—it is advisable and necessary that the knob of the club should never slip to the thumb and forefinger; neither should the thumb extend up the handle of the club. Place the idle arm at the side, with the back of the fingers resting gracefully against the side of the body. Do not allow the club to wabble. When a movement is made requiring the arm to be extended, hold the club firmly, yet as gracefully as if it were a part of that extension. Imagine that you are standing between perfect circles at right angles with each other—large and small on either side; large in front and small behind. The clubs should follow these lines perfectly in all the small circles and sweeps.

Be satisfied to practice with one club until all the single moves have been mastered; the double moves will then be more readily attained, as they are combinations of the single.

Practice each move separately, as shown in the illustration of the same. Learn the *name* of each move, and it will be helpful, inasmuch as it is suggestive.

Do not be ambitious to handle heavy clubs. Judicious practice regularly taken with a pair of *light* clubs will prove more beneficial than spasmodic or overwork with *heavy* clubs. Stand firmly, but not rigidly. Place the feet in as graceful and comfortable a position as the nature of the movement will allow. Do not quite touch the heels, nor place them too far apart, when facing an audience.



POSITION.

Place the club in the hands, as shown in POSITION. Toss the club a little higher than the head, placing the left hand against the side of the body, the back of the fingers touching the body. Pass the right hand back of the head at the right side, and allow the club to drop and form a complete small circle back of the head, which I designate as the *small inward*. Follow this movement with a full sweep of the arm in front toward the left side, bringing it up on the right to make *two* small inwards, etc., thus forming Fig. 1.

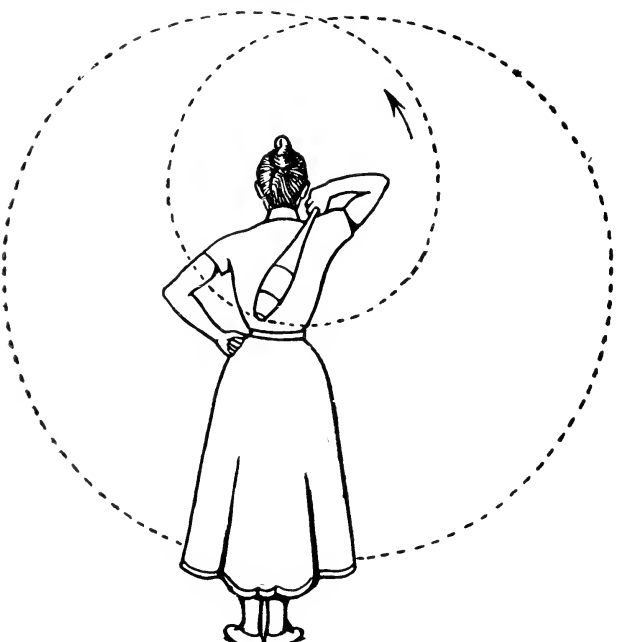


FIG. 1.

Inward—Right—Small circle inward—Sweep in front (three times)

CHANGE.—By halting the club, just as it sweeps up the right side, a little higher than the shoulder, and reverse the movement.

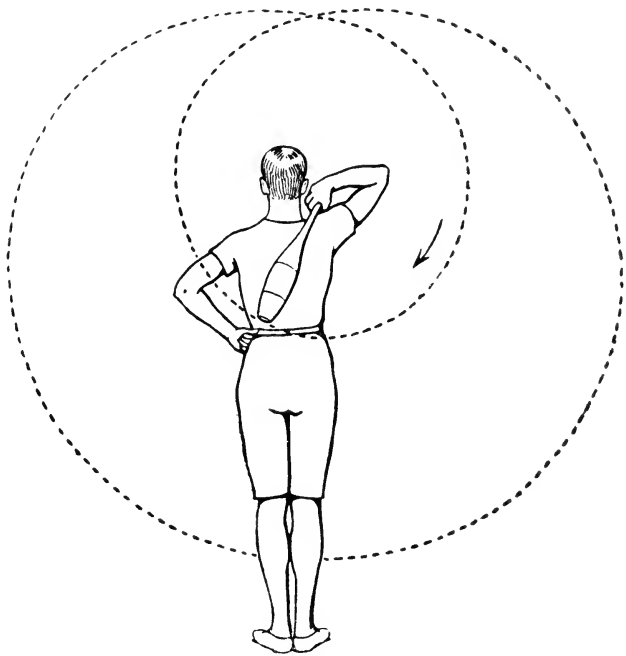


FIG. 2.

OUTWARD—RIGHT.

1. Small circle outward—Sweep in front.
2. " " " " " "
3. " " " " " "

CHANGE—By passing the club to the left hand just as it sweeps up toward the left side the third time. When a little higher than the shoulder, let it fall to a small outward circle.

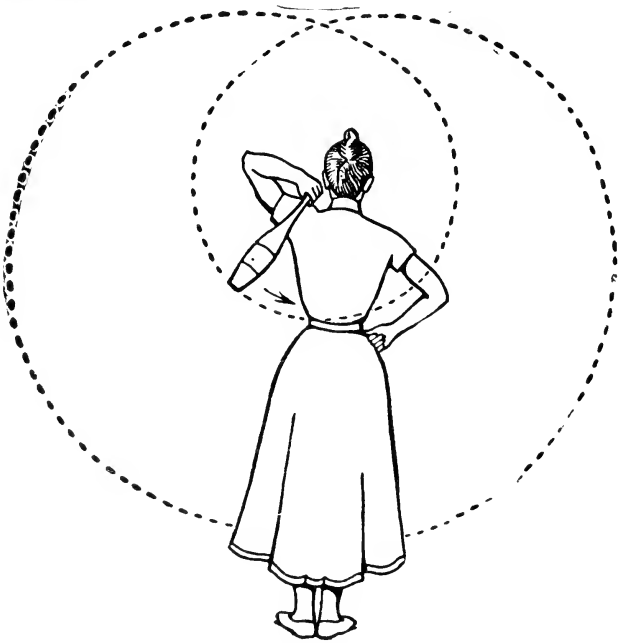


FIG. 3.

OUTWARD—LEFT.

1. Small circle outward—Sweep in front.
2. " " " " " "
3. " " "

CHANGE—By omitting the third sweep outward, but instead drop the club in front of the face, following with a full sweep inward, bringing up the club on the left side and making a small inward circle.

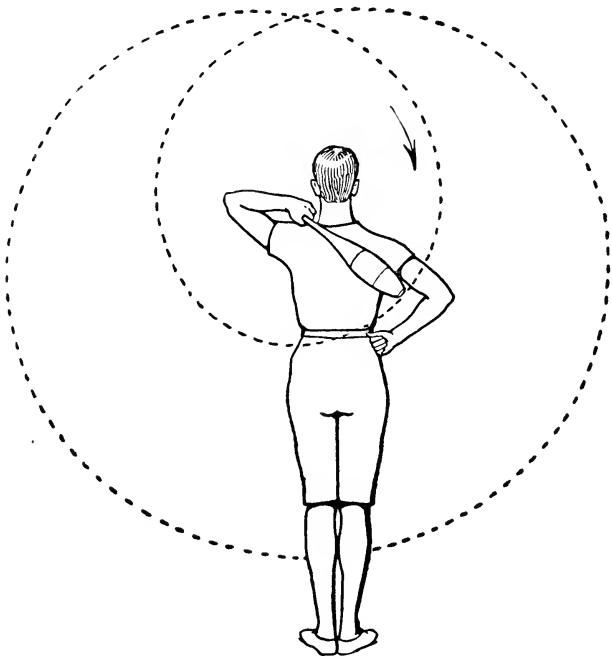


FIG. 4.

INWARD—LEFT.

1. Small circle inward—Sweep in front.
2. " " " " " "
3. " " " " " "

CHANGE—By halting the club when it sweeps up the left side the third time, poising it at *Poise 1*, as shown in the illustration. Let it fall as if to make an outward, but instead of making a full circle, halt it at *Poise 2*, and then drop it in front of the face.

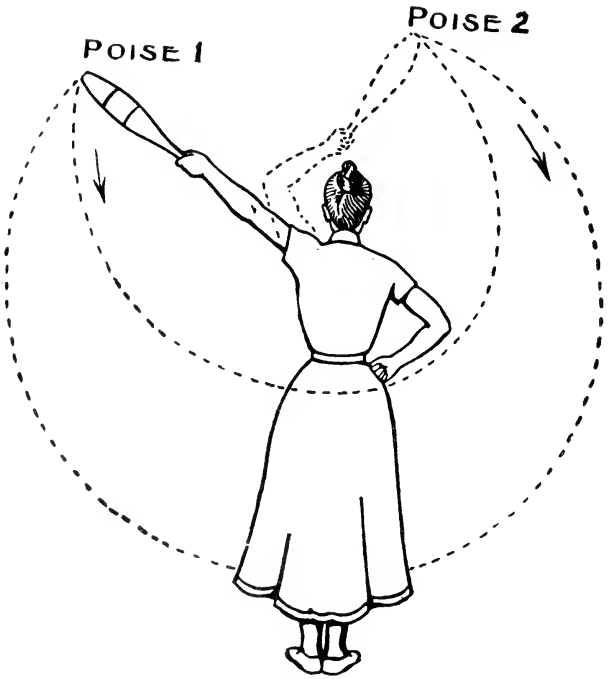


FIG. 5.

POISE—DROP. LEFT.

Poise at 1—Poise at 2—Drop in front of the face.

" " " " " " " "

" " " " " " " "

CHANGE—By poising again at *Poise 1*, reversing the movement to a small outward; then sweep it in front, taking it up with the right hand and halting it at *Poise 1* on the right side. Let it fall as if to make an outward; but instead of making a full circle, halt it at *Poise 2*, and then drop it in front of the face.

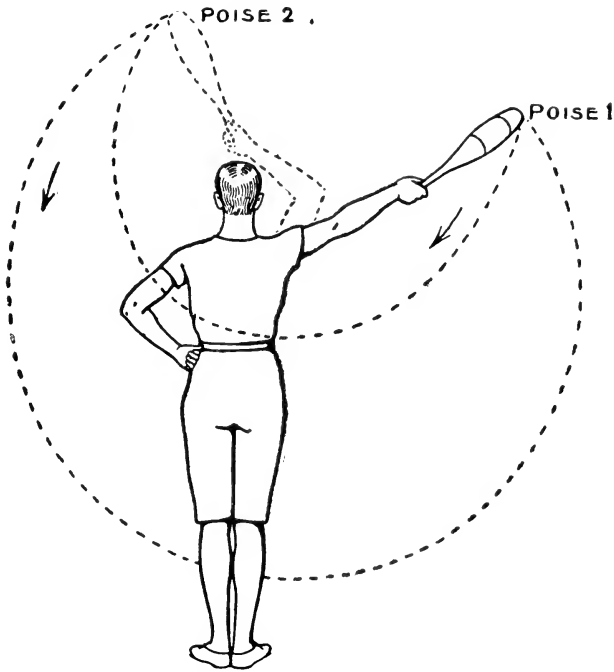


FIG. 6.

POISE—DROP. RIGHT.

Poise at 1—Poise at 2—Drop in front of the face (three times).

CHANGE—By poising again at *Poise 1*, and reversing the movement to a small outward; then sweep it in front and take it up with the left hand to *Poise 1*, left (as shown in Fig. 5); reverse it to a small outward, and pass it from hand to hand after each small outward.

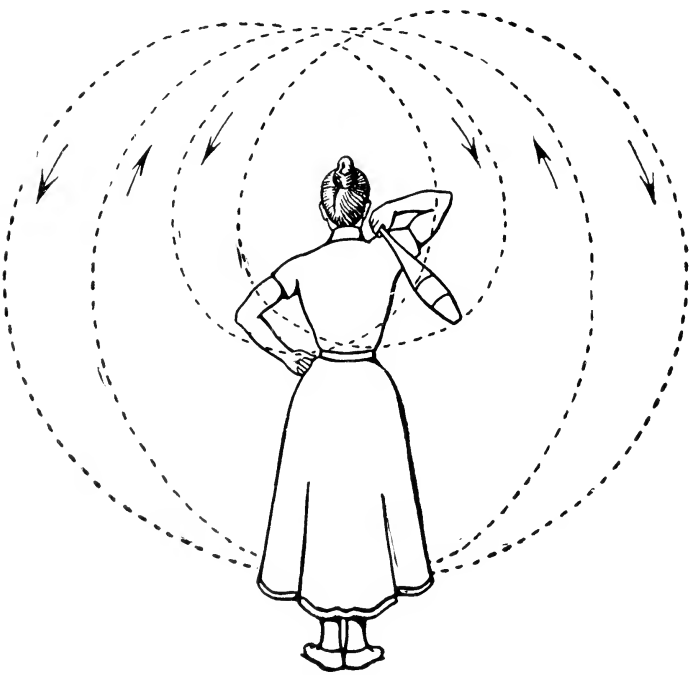


FIG. 7.

ALTERNATING OUTWARD.

Outward—Right—Sweep. Outward—Left—Sweep.

" " " " " "

" " " " " "

CHANGE—By taking the club again in the right hand as if to make a fourth outward, but instead make a small inward, passing it quickly behind the head to the left hand, which should be in position to grasp the club without stopping its motion. It will drop into a small outward circle with the left hand. Sweep it out and front, pass it again to the right hand.

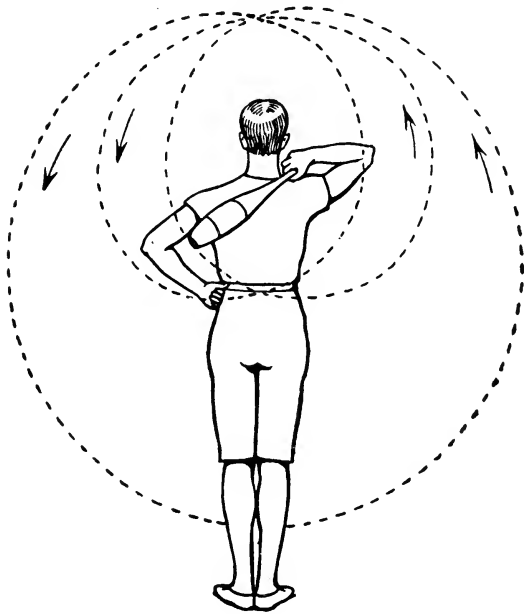


FIG. 8.

LARGE WHEEL—LEFT.

Inward—	Right.	Outward—	Left.	Sweep.
"	"	"	"	"
"	"	"	"	Drop.

CHANGE—By omitting the last sweep with the left hand; drop the club in front of the face, giving a full sweep inward, then small inward with left hand, thus reversing the movement.

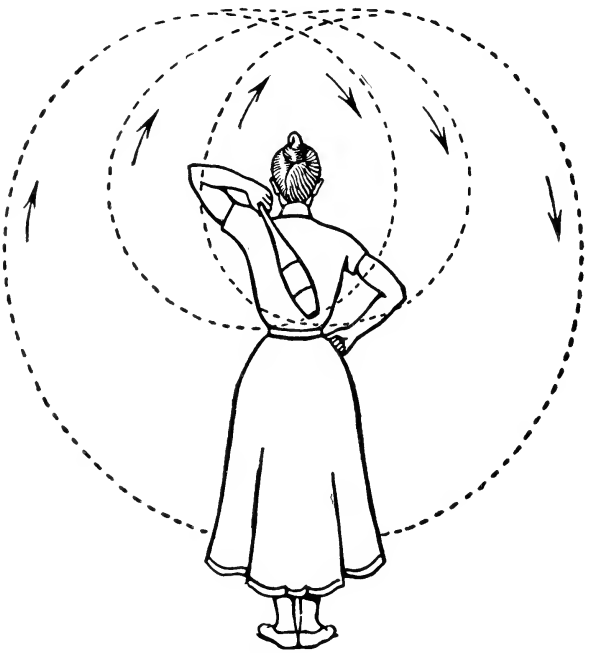


FIG. 9.

LARGE WHEEL—RIGHT.

Inward—	Left.	Outward—	Right.	**Sweep.**
"	"	"	"	"
"	"	"	"	**Drop.**

CHANGE—By again omitting the outward sweep with right hand, drop the club in front of the face, giving a full sweep inward, thus reversing the movement, making only small circles.

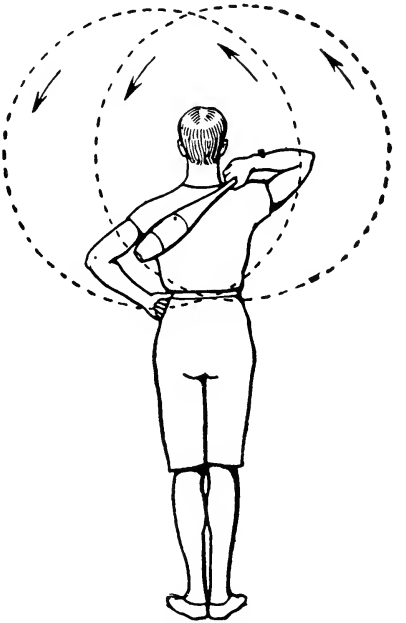


FIG. 10.

SMALL WHEEL—LEFT.

Inward—	Right.	Outward—	Left.	Avoid	Sweep.
"	"	"	"	"	"
"	"	"	"	Drop.	

CHANGE—By dropping the club in front of the face with the left hand, following with a full sweep to inward left, thus reversing the movement.

It will be observed that, in making the small wheels, the sweeps are omitted, thus distinguishing 'tween the large and small wheels.

FIG. 11.

SMALL WHEEL—RIGHT.

Inward—	Left.	Outward—	Right.	Avoid	Sweep.
"	"	"	"	"	"
"	"	"	"	Drop and	Poise

CHANGE—By again dropping the club in front of the face with the right, giving a full sweep inward; but, as the club comes up, halt it at *Poise 1*, swing it to *Poise 2*, and drop in front of the face, bringing it to an inward. Sweep it in front and halt it again at *Poise 1*.

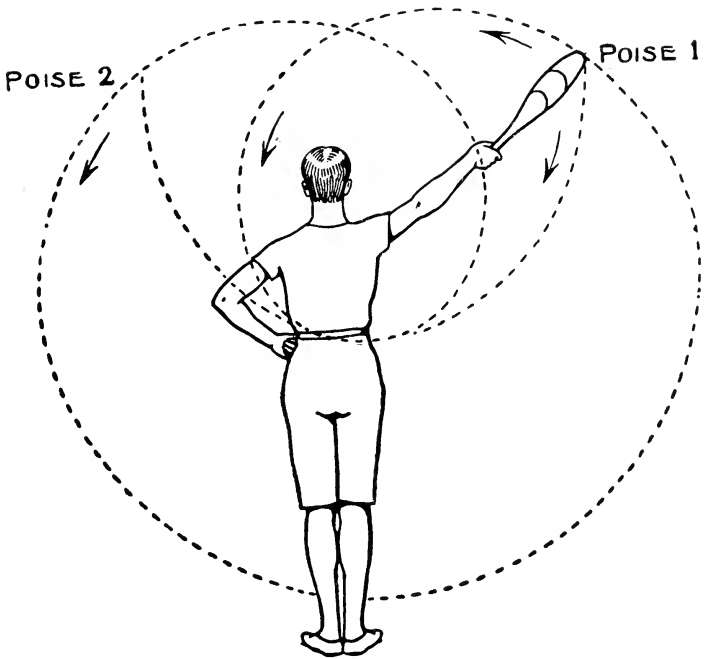


FIG. 12.

POISE—DROP—INWARD. RIGHT.

Poise at 1—Poise at 2—Drop—Inward—Sweep.

" " " " " " "

" " " " " " Pass over

CHANGE—By passing the club to the left hand, making the change back of the head. Pass from the last small inward circle with the right hand to a small outward with the left. Drop the club in front of the face and sweep it up to *Poise 1*, drop it back of the head to *Poise 2*, and then drop it in front of the face, and bring it to an inward. Sweep it in front, and halt it again at *Poise 1*.

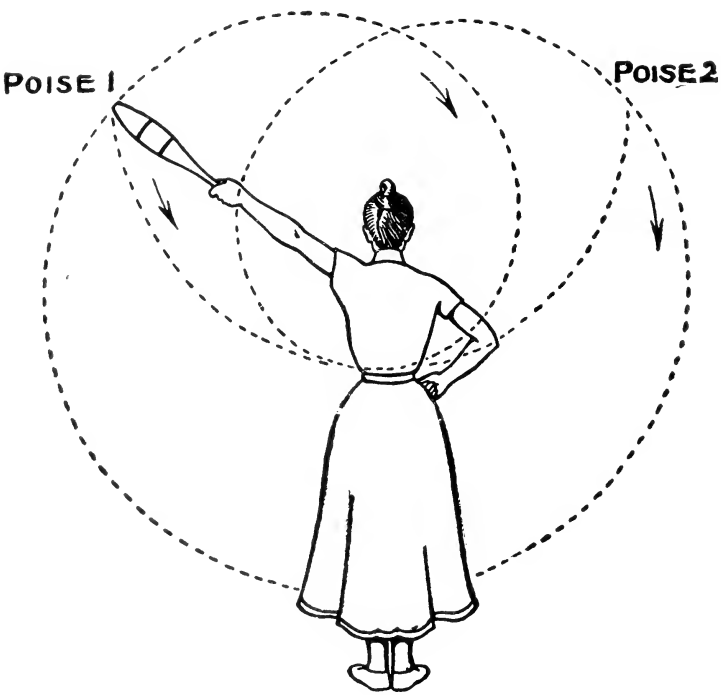


Fig. 13.

POISE—DROP—INWARD. LEFT.

Poise at 1—Poise at 2—Drop—Inward—Sweep.

" " " " " " "

" " " " " " Pass over.

CHANGE—By passing the club to the right hand, making the change back of the head, going from a small inward left to a small outward right. Drop the club in front of the face and sweep it to an inward right, passing it directly back to the left hand—making the change back of the head—and making a drop and inward left.

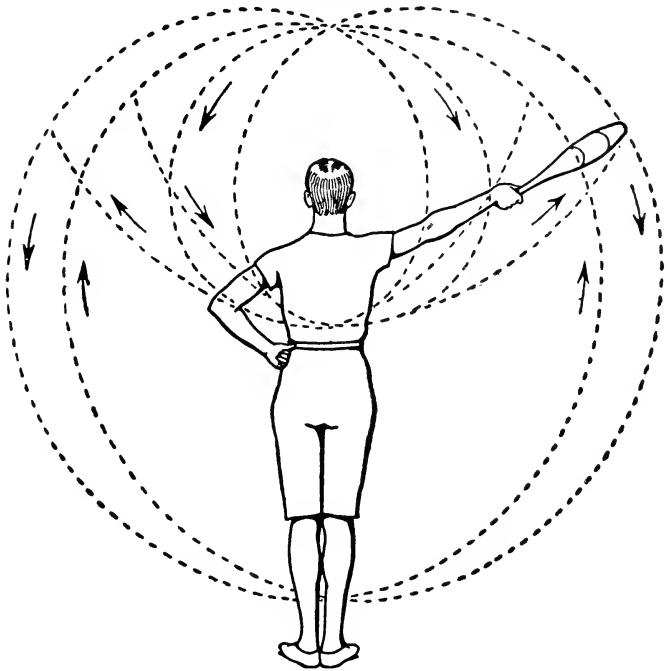


FIG. 14.

ALTERNATING DROP AND INWARD.

Drop—Sweep—Inward—Over. Drop—Sweep—Inward—**Over.**
" " " " " " " "
" " " Turn the body to the left.

CHANGE—By turning the body to the left just as the club is completing the last small inward circle. Keep the arm bent, and make a wrist circle at the side. Keep a firm hold on the club, not allowing the knob to slip to the thumb and forefinger.

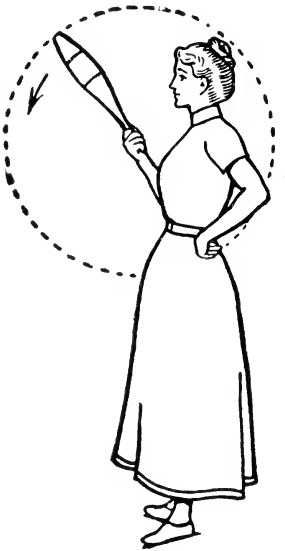


FIG. 15.

SMALL SIDE.

Small side-circle. 1–2–3.

CHANGE—By extending the arm upward and forward, making a large circle at the side without bending the arm.

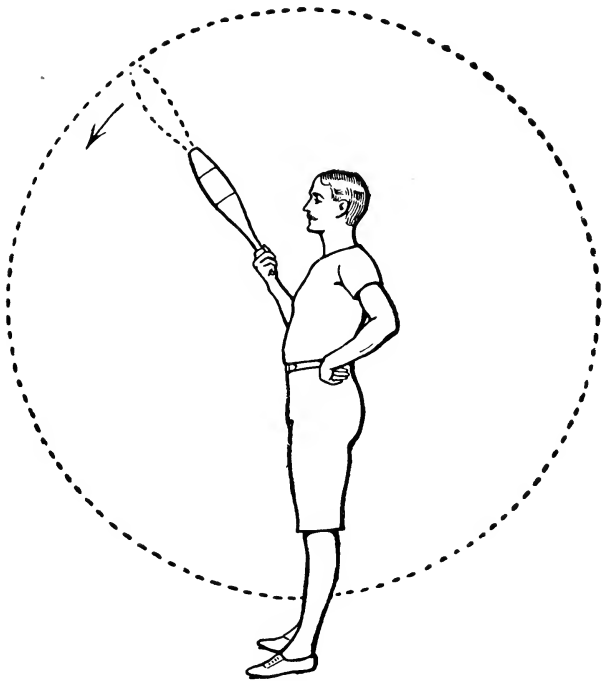


FIG. 16.

LARGE SIDE.

Large side-circles. 1–2–3.

CHANGE—By checking the club just as it passes the feet on the third downward stroke, and reversing the movement. Do not allow the club to wabble when checking it, nor the arm to bend when making the circle.

FIG. 17

REVERSE.

Large size—Reverse. **1–2–3.**

CHANGE—As the club comes up in front on the third circle. When it is high enough, drop it to a *small* side, followed by a *large* side; then, as it is ready to descend as if to make a *second* large side, bring it diagonally to the left side with a full sweep, then back to the starting point of a large side, and make another large side-circle.

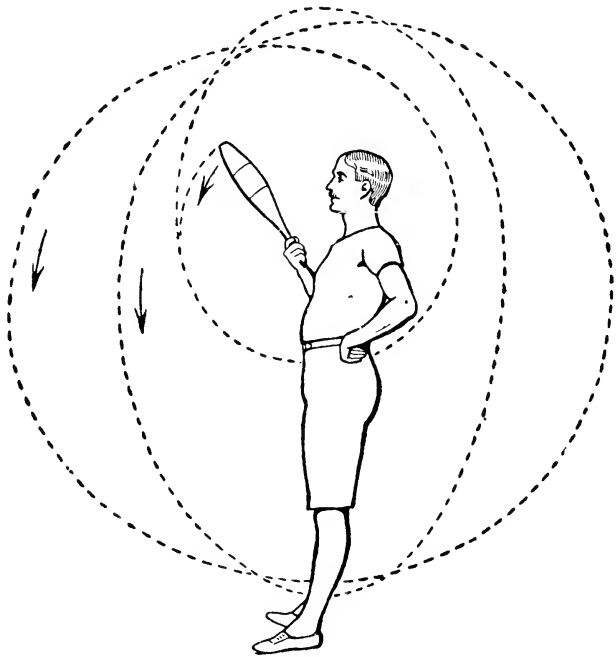


FIG. 18.

SIDE AND DIAGONAL.

One small—Large. Diagonal—Large.
Two " " " "
Three " and over.

CHANGE—At the close of the third small circle, by making a small inward and passing the club to the left hand, making the change back of the head. Make a small outward with the left, and when the club becomes vertical, drop it back to a small inward with the same hand, and when the club again becomes vertical, change the movement to a small side-circle.

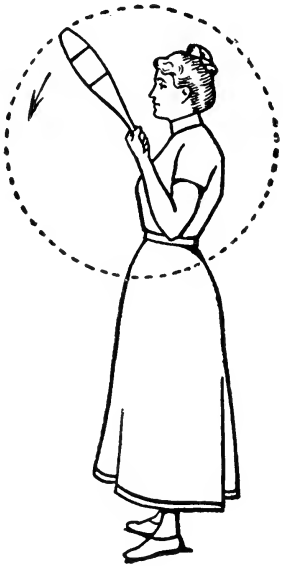


FIG. 19.

SMALL SIDE.

Small side-circle. **1–2–3.**

CHANGE—By extending the arm upward and forward, making a *large* circle at the side, without bending the arm.

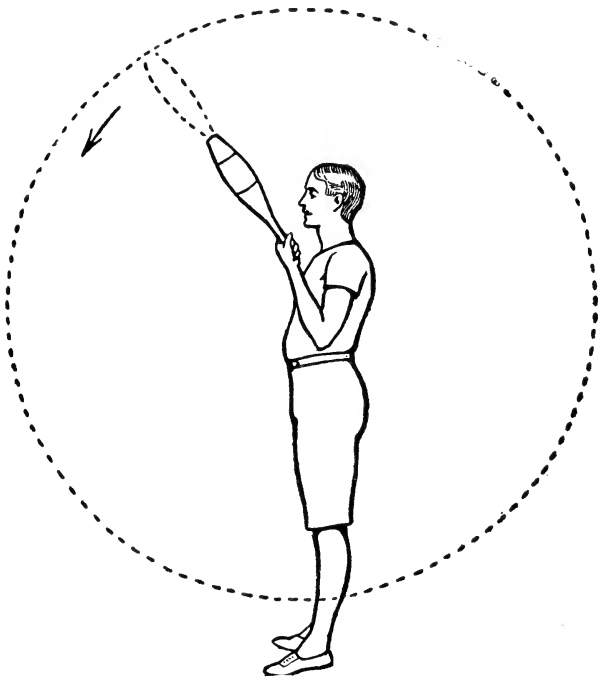


FIG. 20.

LARGE SIDE.

Large side-circle. 1–2–3.

CHANGE—By checking the club just as it passes the feet on the third downward stroke, and reversing the movement. Do not allow the club to wabble when checking it, nor the arm to bend in making the circle.

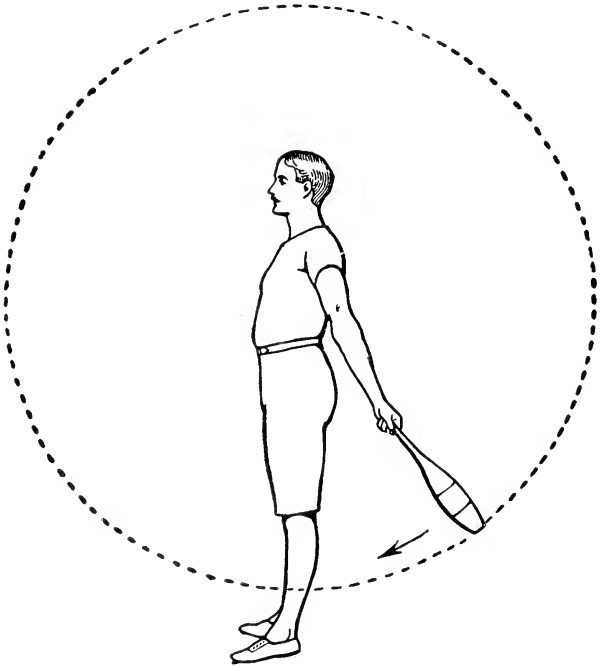


FIG. 21

REVERSE.

Large side—Reverse. 1-2-3.

CHANGE—As the club comes up in front on the third circle. When it is high enough, drop it to a *small* side, followed by a *large* side; then, as it is ready to descend, as if to make a *second* large side, bring it diagonally to the right side with a full sweep; then back to the starting point of a *large side*, and make another large side-circle.

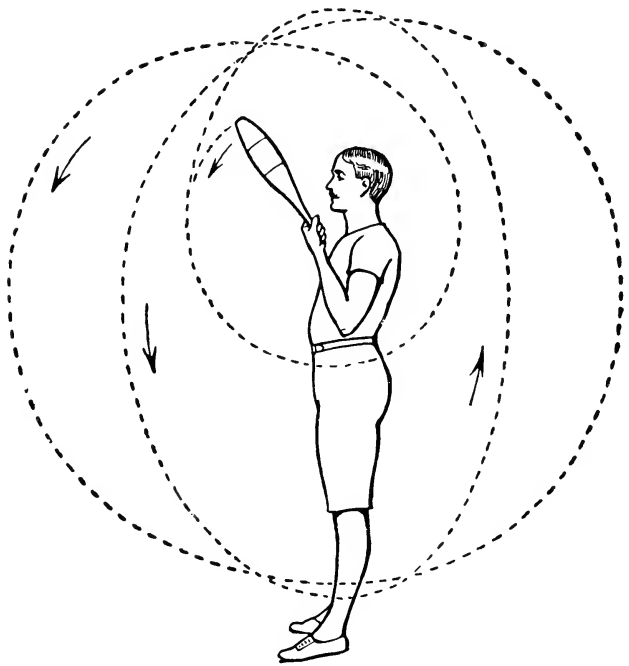


FIG. 22.

SIDE AND DIAGONAL.

1. Small—Large. Diagonal—Large.
2. " " " "
3. " and face front.

CHANGE—By extending the arm at the completion of the third small circle, as if to make a large side circle; then, just as the club is ready to sweep down, turn the body quickly back to the front position. Sweep the club in front, make a small outward with the left hand, and sweep it to the right. Place the right hand as shown in the illustration, and make small circles outside and inside the arm, keeping the arm extended as much as possible, and keep the club as *near* the arm as possible. *Keep the little finger next to the knob.*

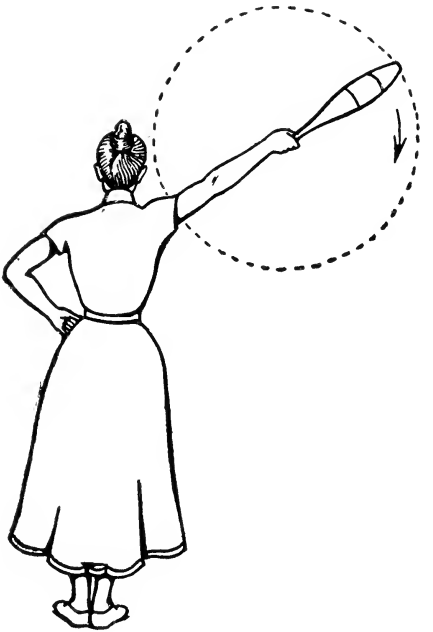


FIG. 23—CHIN-KNOCKER.
Outside of arm—Inside of arm (three times each)
Sweep to the left hand.

CHANGE—By sweeping the club to the left hand and making a small outward with the left. Place the hand, as shown in the illustration, and make small circles outside and inside the arm, keeping the arm extended as much as possible; also keep the club moving as *near* the arm as possible. Do not let the knob of the club slip to the thumb and forefinger.

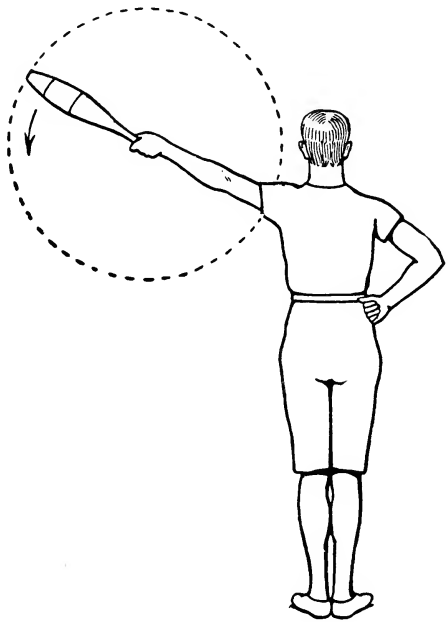


FIG. 24.

CHIN-KNOCKER.
Outside of arm—Inside of arm (three times each).
Sweep to right hand.

CHANGE—By small outward and sweep with left hand, carrying the club to the right side by the right hand, until the hand is straight with the shoulder, as seen in the illustration. Grasp the club firmly, and hold it in an upright position. Without *raising, lowering* or *bending* the arm the *slightest,* lay the club on the arm, then raise it and extend it till it is perfectly straight. Throughout this entire exercise the arm should not move nor bend at the elbow.

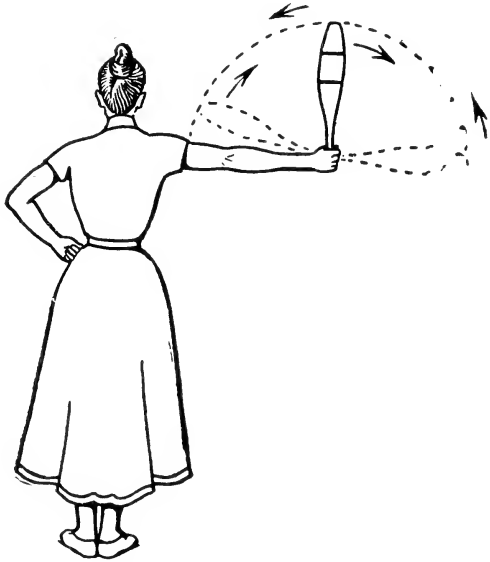


FIG. 25.

THE LEVER.

Upright—On the arm—Straight out.
" " " "
" " " "
" and toss to outward.

CHANGE—By tossing the club to a small outward, and sweep it to the left hand; stop the hand as soon as it is even with the shoulder, and place the club in an upright position. Lay the club on the arm without bending the arm at the elbow. Raise the club without moving the arm, and extend it until it is perfectly straight, as shown in the illustration.

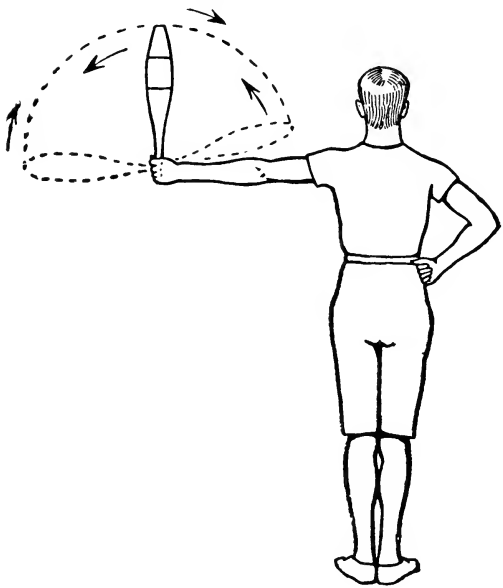


FIG. 26.

THE LEVER.

Upright—On the arm—Straight **out.**

" " " "

" " " "

" " and toss to outward

CHANGE—By tossing the club to a small outward. Do not make a sweep, but just as the club completes the small circle, reverse it to a small inward. Then, just as the club is upright, make a small side-circle, and when the club is again upright, make a small inward, thus alternating *small inwards* and *small sides*.

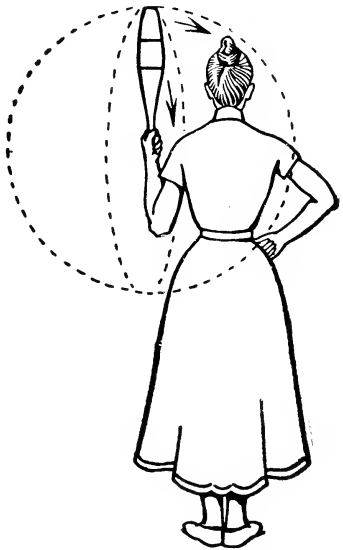


FIG. 27.

INWARD AND SIDE.

Small inward—Small **side.**
" " " "
" " " "
" " and over to the **right.**

CHANGE—By passing the club back of the head to the right hand. Make a small outward with the right hand, then reverse it to a small inward, and, as it comes to an upright position, change it to a small side-circle, then back to a small inward; thus alternating *small sides* and *small inwards*.

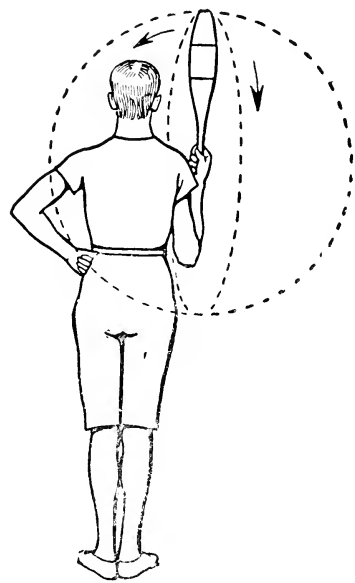


FIG. 28.
INWARD AND SIDE.

Small inward—Small side (three times each).
" " and toss over the head, letting it drop gently in the left hand, as shown in Fig 1—position. This will give a graceful

FINISH

CONDENSED FOR CONVENIENCE

ONE CLUB

Presupposing that the pupil has become familiar with all the movements; *i.e.*, with the necessary *details* in the learning of each, I present herewith my system of exercises in a *condensed* form, as a reminder to the individual, or as an aid to the teacher in calling the movements to a class.

The order of exercises, and the number of movements of each, are the same as I use for my classes in their public exhibitions.

On the rostrum, at the close of my lecture on *"Scientific Physical Training, or the Care of the Body,"* I aim not only to entertain, but to exemplify the principles set forth in my lecture, by giving, in appropriate costume, my entire system of Indian-club exercises—the clubs weighing eight pounds each.

As a rule, I do not advocate the use of heavy clubs; but these, to me, do not seem heavy, having had them in use—privately and publicly—for thirty years.

My plan of work is on the principle of "cumulative strength"—the only *true* principle. Hence I advise the use of one club throughout the entire system of exercises; then rest a moment before swinging the two clubs. Rest again, if desirable, at the close of the "windmill," before concluding the entire system.

By so doing I find no difficulty in closing the evening's entertainment by a few movements with *both clubs* (16 lbs.) *in one hand.*

By adhering to these suggestions, *invigoration* will take the place of *exhaustion*. Be patient in well doing.

ONE CLUB.

No. 1. Inward Right—one.
" " two.
" " three.
No. 2. Outward Right—one.
" " two.
" " three.
No. 3. Outward Left—one.
" " two.
" " three. **Drop.**
No. 4. Inward Left—one.
" " two.
" " three.
No. 5. Poise and Drop—Left. 1-2-3.
No. 6. Poise and Drop—Right. 1-2-3.
No. 7. Outward Right—Outward Left.
" " " "
" " " "
No. 8. Large Wheel—to the Left. 1-2-3. Drop and reverse.
No. 9. Large Wheel—to the Right. 1-2-3. Drop and reverse.
No. 10. Small Wheel—to the Left. 1-2-3. Drop and reverse.
No. 11. Small Wheel—to the Right. 1-2-3. Drop and Poise.
No. 12. Poise—Drop—Inward Right. 1-2-3. Over.
No. 13. Poise—Drop—Inward Left. 1-23. Over.

No. 14. Drop—Inward Right—Over.
Drop—Inward Left—Over.
Drop—Inward Right—Over.
Drop—Inward Left—Over.
Drop—Inward Right—Turn.
No. 15. Small Side—Right. 1-2-3.
No. 16. Large Side—Right. 1-2-3.
No. 17. Reverse. 1-2-3.
No. 18. Small—Large—Diagonal—Large
2 " " " "
3 " Change to left hand.
No. 19. Small Side—Left. 1-2-3.
No. 20. Large Side—Left. 1-2-3.
No. 21. Reverse. 1-2-3.
No. 22. Small—Large—Diagonal—Large.
2 " " " "
3 " Turn. Change to right.
No. 23. Chin-knocker—Right. 1-2-3.
No. 24. Chin-knocker—Left. 1-2-3.
No. 25. Lever—Right. 1-2-3.
No. 26. Lever—Left. 1-2-3.
No. 27. Inward and Small Side—Left. 1-2-3.
No. 28. Inward and Small Side—Right 1-2-3.

Finish by tossing the club over the head, dropping it gently into the left hand.

TWO CLUBS

GENERAL DIRECTIONS

When the clubs fall parallel in the same direction, they should drop simultaneously, and should not be separated from each other any greater distance *during* the movement than when the movement *began*.

With the single exception of a "follow" movement (the windmill, Fig. 12) both clubs should drop with the same impulse, even though they are making different movements. The slightest variation from this rule will destroy the gracefulness and beauty of the swinging.

When facing front, avoid turning the body from side to side, except in Fig. 1. Practice before a mirror, in order that every movement of the club may be seen while facing front. This will teach one to look at his audience, instead of turning his head and watching the clubs. Master your clubs instead of allowing them to master you.

Take position by pointing the two clubs to the left, as shown in the illustration. Keep the palms of the hands up in order to steady the clubs. Toss both clubs up and out, sweeping them down in front of the body, and bringing them up to left side. Avoid angles. Toss them out and bring them in as if describing an arc of a circle.

N. B.—To take up the clubs artistically—which cannot be done until all of the movements shall have beer learned—see page 68.

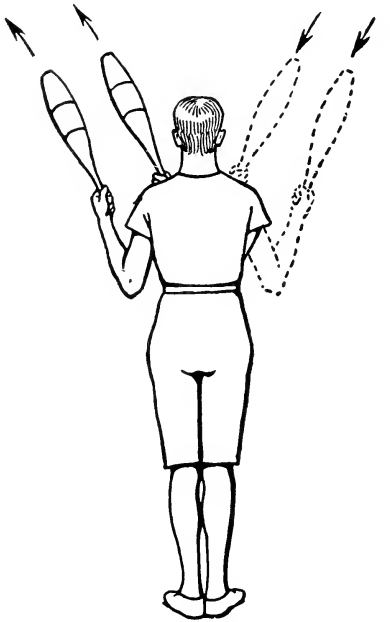


FIG. 1.

POINT.

Point left—Sweep. Point right—Sweep (three times each).
" " Halt.

CHANGE—By halting at position and making a small outward with the left, and a full sweep with the right; both clubs dropping simultaneously. The club in the right hand makes a large revolution, while the one in the left makes a small one.

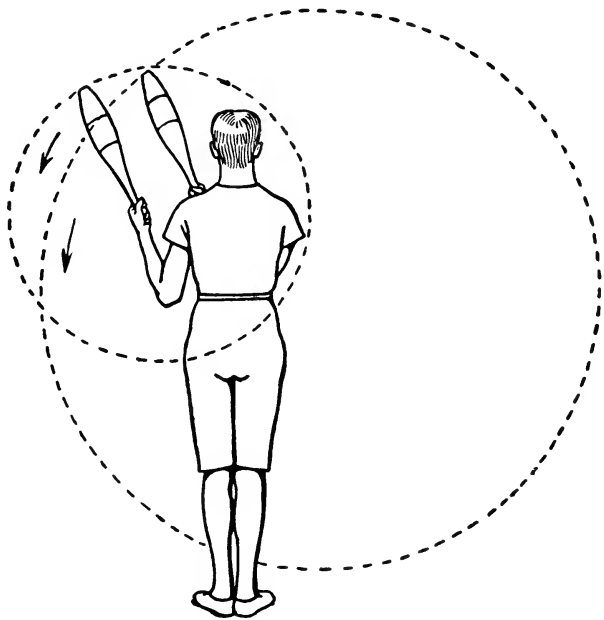


FIG. 2.

SMALL LEFT—LARGE RIGHT.

Small Wheel—left hand. Large Wheel—right hand.

" " " " " " " "

" " " " " " " "

CHANGE—By sweeping both clubs in front and bringing them up on the right side, and halting them in position of point right. Make a small outward with the right hand, and a full sweep with the left, both clubs falling simultaneously.

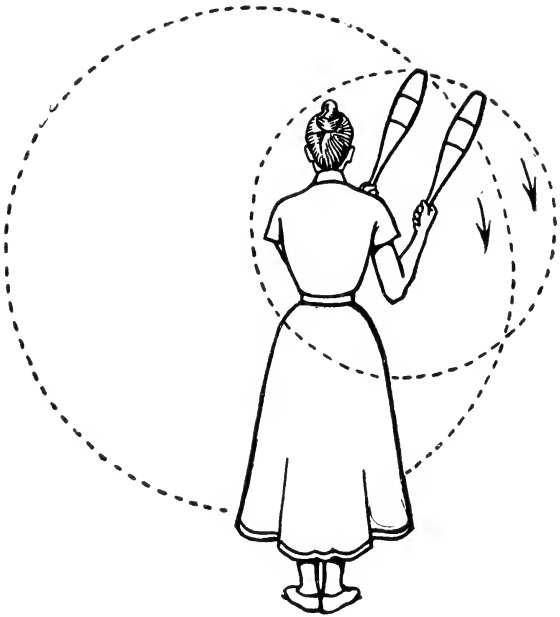


FIG. 3.

SMALL RIGHT. LARGE LEFT.

Small Wheel—right hand. Large Wheel—left hand.

" " " " " " " "

" " " " " " " "

CHANGE—By sweeping the clubs back to the left side and halting them a second, making a small outward with the left and a full sweep with the right. Sweep them both to the right side and halt only long enough to make a small outward with the right and a full sweep with the left; thus alternating the movement from side to side.

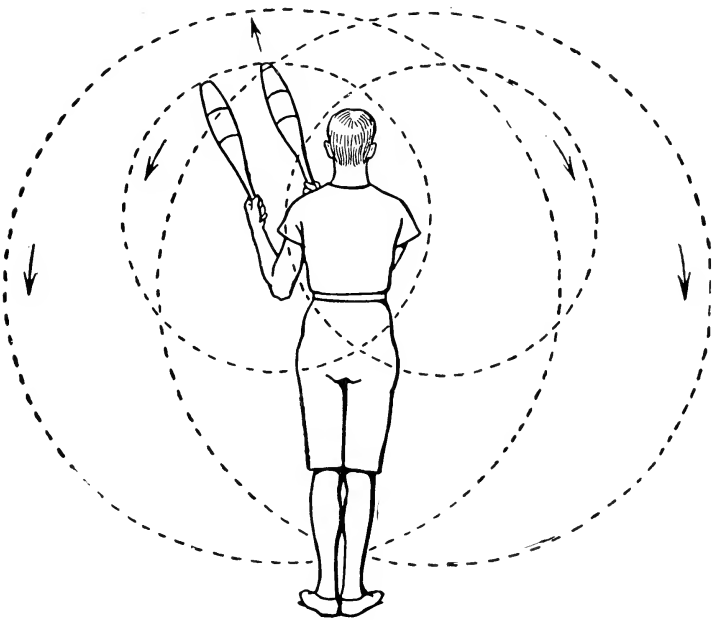


FIG. 4.

ALTERNATE.

Small left—Large right—Sweep. Small right—Large left—Sweep.
" " " " " " " " " "
" " " " " " " " " "

CHANGE—By sweeping the clubs back to the left side and halting the club in the left hand at poise 1; but pass the right club up in front of the face and push it back of the head, letting it drop as if to make an inward. Instead of making a small circle, push it to the right, as shown in the illustration. As the right club drops behind the head, the left club sweeps in front toward the right side. The clubs now change position—the left club is pushed back of the head, and the right club sweeps in front.

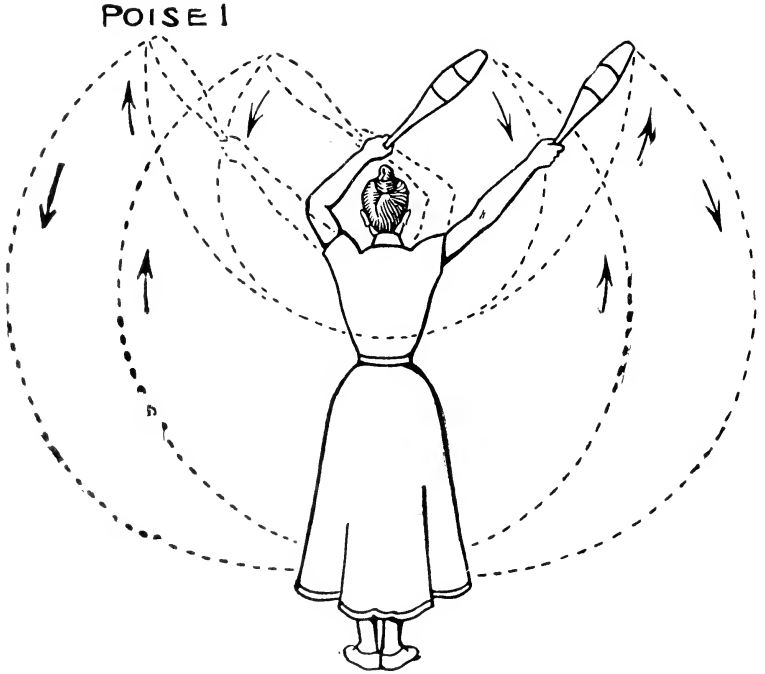


FIG. 5—BACKWARD DROP.

Backward drop—right—push. Backward drop—left—push. (Three times each).

CHANGE—By halting the left club at poise 1; swing it to poise 2; and drop it in front of the face. While this is being done the right club sweeps back on the circle in front, and halts at poise 1 on the right side, then to poise 2, and drops in front of the face; thus making the regular poise and drop with each hand.

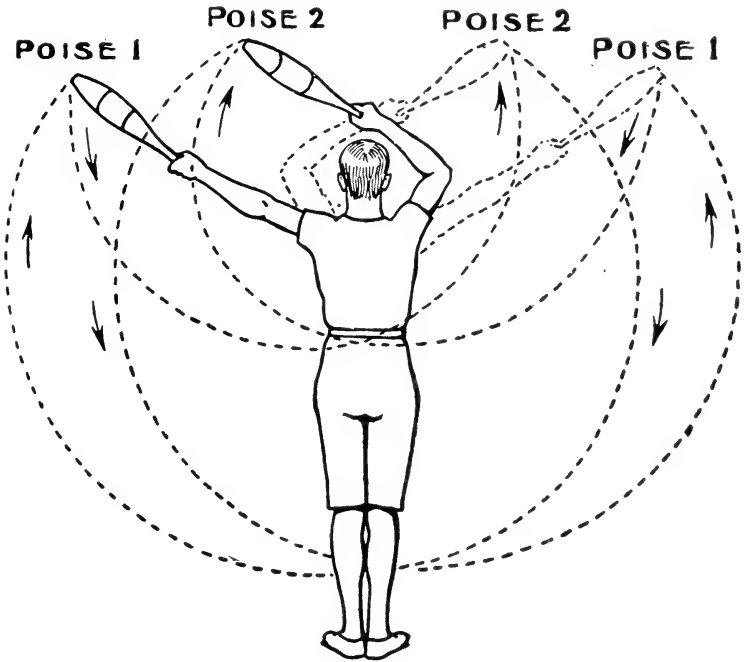


FIG. 6—FORWARD DROP.

Poise and drop—Left. Poise and drop—Right.
" " " " " " " "
" " " " " " " "

CHANGE—By halting the clubs a second when they are on the left side. Turn the left club to an outward, while the right club passes down in front and sweeps up on the right side, making a small inward and push—as in the backward drop. It then sweeps down in front and is pushed back of the head, making a backward drop and push, while the left club is making an outward.

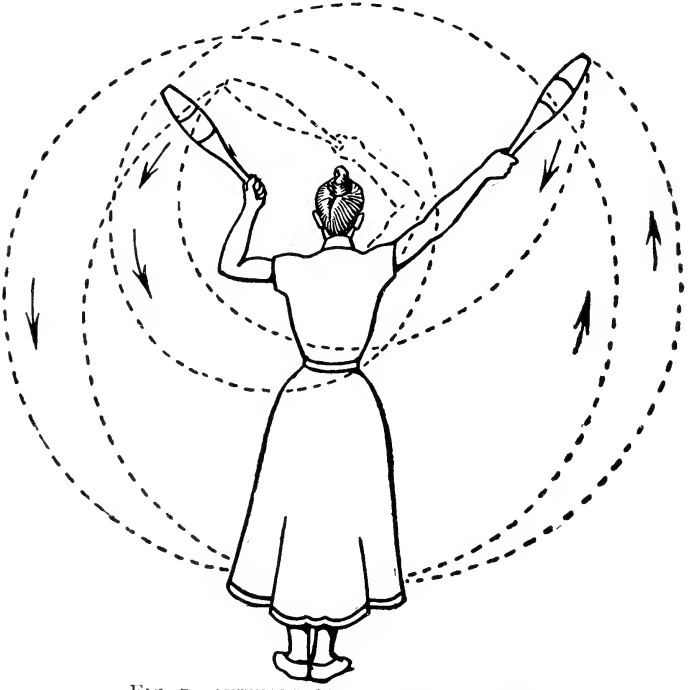


FIG. 7—OUTWARD LEFT—BACKWARD DROP.

Outward left—Sweep. Backward drop and push—Right. (Three times each).

CHANGE—By converting the backward push and drop of the right club, to an outward and sweep. When the club is pushed *right* the third time, instead of dropping it in front, turn it immediately to an outward. The left club makes no change but continues making the outward and sweep.

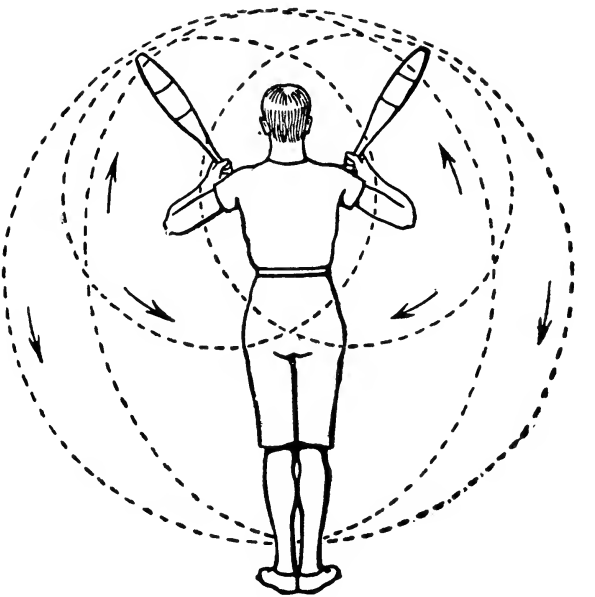


FIG. 8.
ALTERNATING OUTWARD.

Outward left—Sweep.			Outward right—Sweep.		
"	"	"	"	"	"
"	"	"	"	"	"

CHANGE—By halting both clubs a second, just as the *right* club closes the third small outward. Reverse it to a small inward, followed by a full sweep. The left club also reverses its movement, making a sweep, followed by a small inward. One club is making an inward while the other is making a sweep.

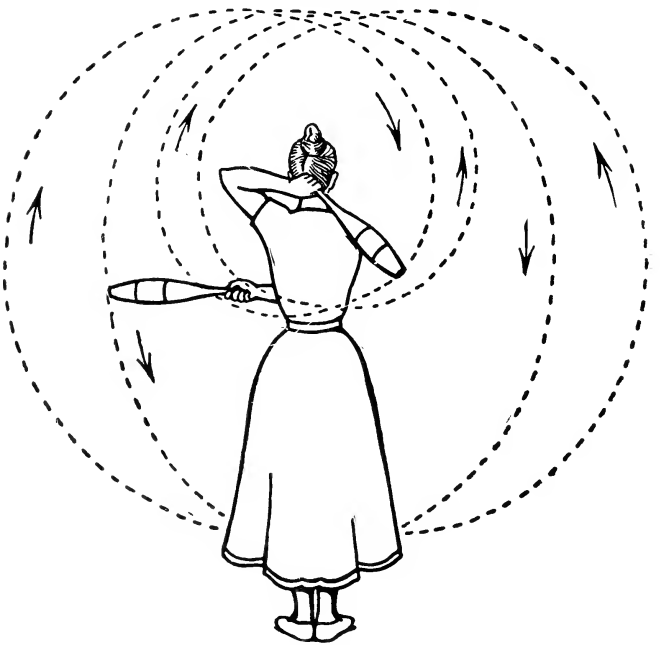


FIG. 9.

ALTERNATING INWARD.

Inward right—Sweep. Inward left—Sweep.
" " " " " "
" " " Both clubs left side.

CHANGE—By making a small outward left, and a full sweep with the right; *i.e.*, what is known as small left, large right. Sweep both clubs in front at the same time, and bring them up on the right side, and sweep them up, over and back of the head, making small circles, both clubs parallel, as shown in the illustration.

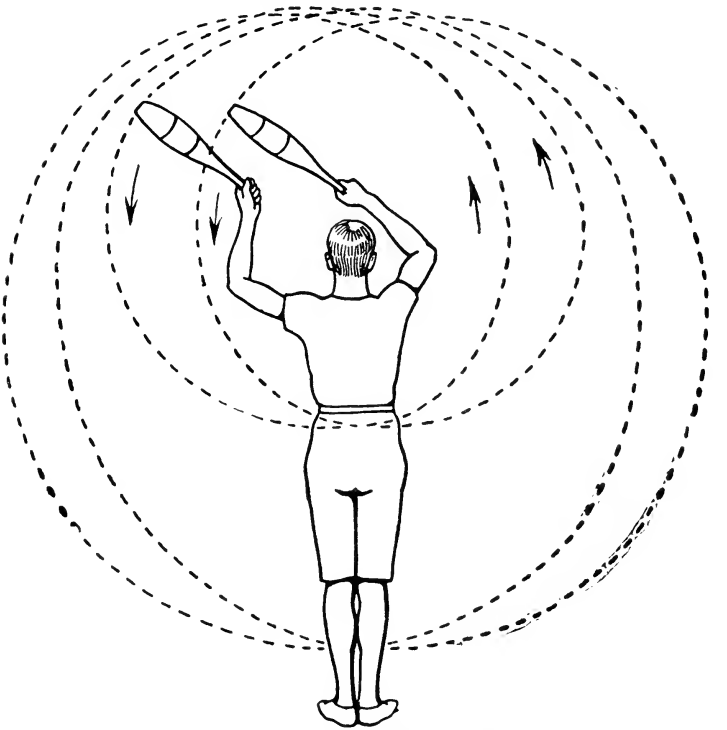


FIG. 10—SMALL CIRCLES—BACK.
One small circle—Sweep. Two small circles—Sweep.
Three small circles—Change.

CHANGE—By making an *extra* small circle with the left hand while the right sweeps in front. The right hand passes back to a small inward, while the left hand sweeps in front. By the time the small inward is finished with the right hand, the left will be in place for a small outward. The clubs now join, and make another double circle back of the head.

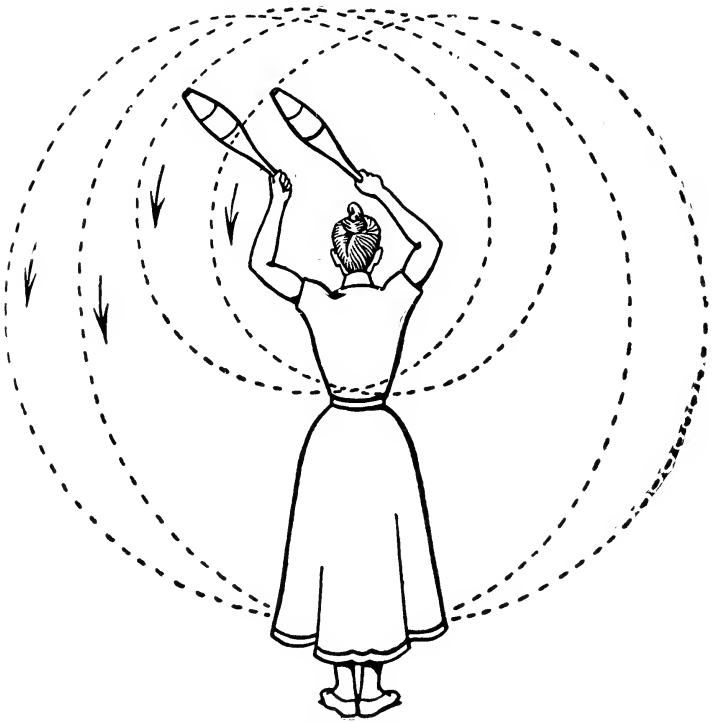


FIG. 11—LEFT—RIGHT—BOTH.

Small left—Sweep.			Small right—Sweep.			Small—Both.		
"	"	"	"	"	"	2 "	"	
"	"	"	"	"	"	3 "	"	

CHANGE—By pushing the left club up and out from the shoulder, while hastening the right in front, and making a full sweep, till—without halting either club—the right club is exactly opposite the left, just after the right passes the feet—both arms extended. The clubs should now follow each other, but neither *catch* the other. The right hand makes an inward and sweep, while the left is following with a sweep and outward.

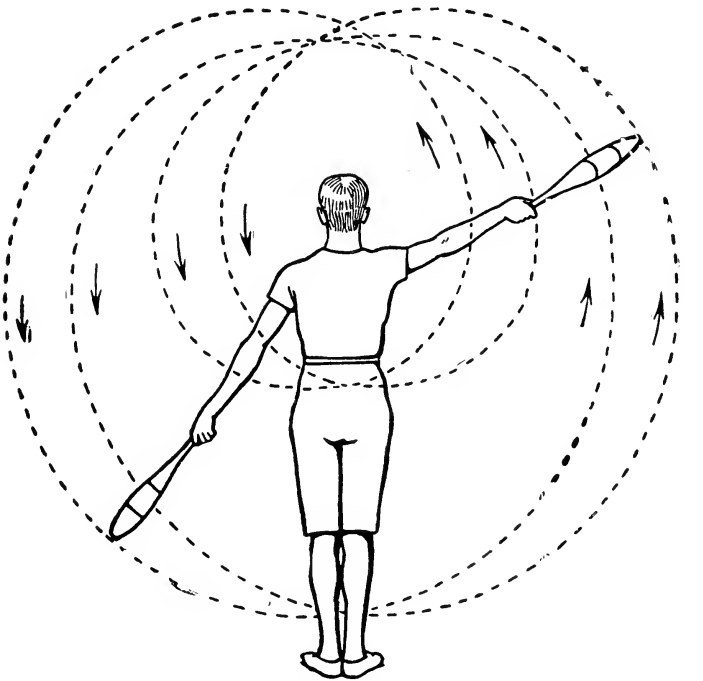


FIG. 12—THE WINDMILL.

Inward right—Outward left—Sweep—Sweep.
" " " " " "
" " " " omit sweep

CHANGE—By slowing up on the left till the right catches it. Sweep both clubs in front and then back of the head, as shown by position of clubs in Fig. 10. Continue the small inward circles with the right hand, but shift the position of the left a trifle forward, making small side circles. Both clubs should fall and rise at the same time, each crossing the track of the other. Swing them so that the circles are at right angles.

FIG. 13—SIDE AND INWARD—LEFT.
Small side—Left. Small inward—Right (three times each).

CHANGE—By quickly shifting the clubs to the *right* side, making a small inward with the left, and a small side with the right.

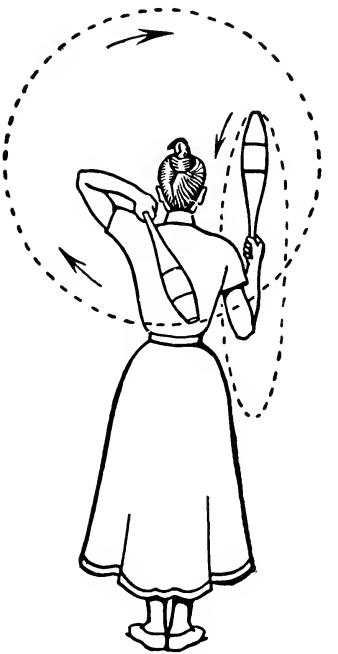


FIG. 14.

SIDE AND INWARD—RIGHT.

Small side—Right. Small inward—Left.

" " " " " "

" " " " " "

CHANGE.—By shifting the clubs back to the left side and then back to the right, continuing the same movement, but alternating from side to side.

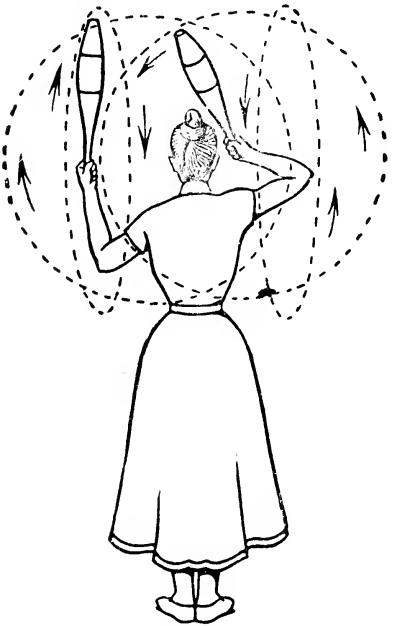


FIG. 15.

ALTERNATE.

Side and inward—Left. Side and inward—Right

" " " " " " " "

" " " " " " " "

CHANGE—By bringing the clubs to a perpendicular poise on each side of the head. Make a small inward with the right, then a small inward with the left; again with the right, and again with the left. Sweep the right in front of the face, then the left, and bring them up to repeat the small inwards with each.

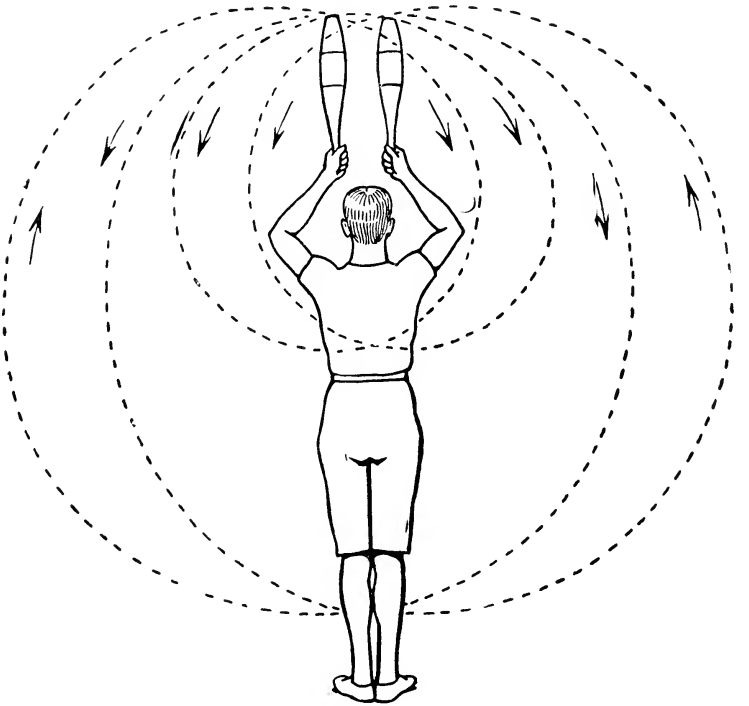


FIG. 16.

RIGHT—LEFT—RIGHT—LEFT—SWEEP—SWEEP.

Inward right–Inward left–Inward right–Inward left–Sweep–Sweep.

" " " " " " " " "

" " " " " " omit sweep.

CHANGE—By omitting the sweep the third time. At the conclusion of the small circles, bring the clubs again to a perpendicular poise on each side of the head, and make small side-circles; both clubs falling and rising simultaneously.

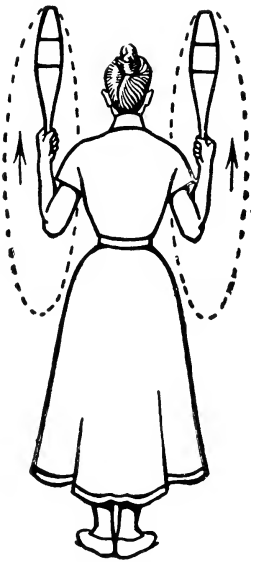


FIG. 17.

SMALL SIDES.

Small	side—Right.		Small	side—Left.		Together.
"	"	"	"	"	"	"
"	"	"	"	"	"	"

CHANGE—By bringing the clubs again to a perpendicular poise on each side of the head. Make small inwards with each hand at the *same time,* the clubs crossing each other at the handles.

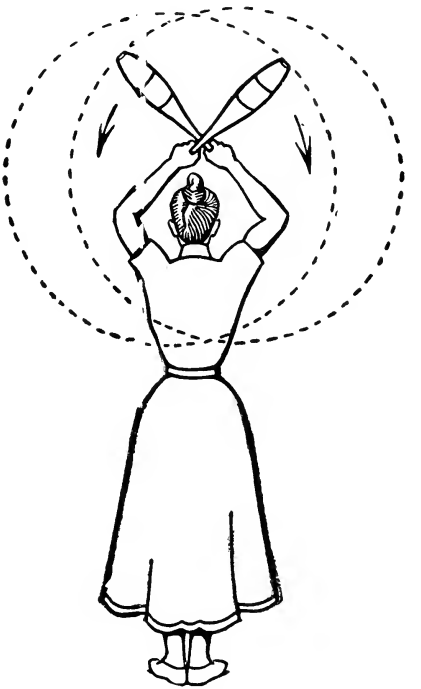


FIG. 18.

SMALL INWARDS.

Small inward—	Right.		Small inward—	Left.		Together.
"	"	"	"	"	"	"
"	"	"	"	"	"	"

CHANGE—By sweeping both clubs in front of the face at the same time, crossing each other above and below in the circle. Keep the arms as fully extended as possible.

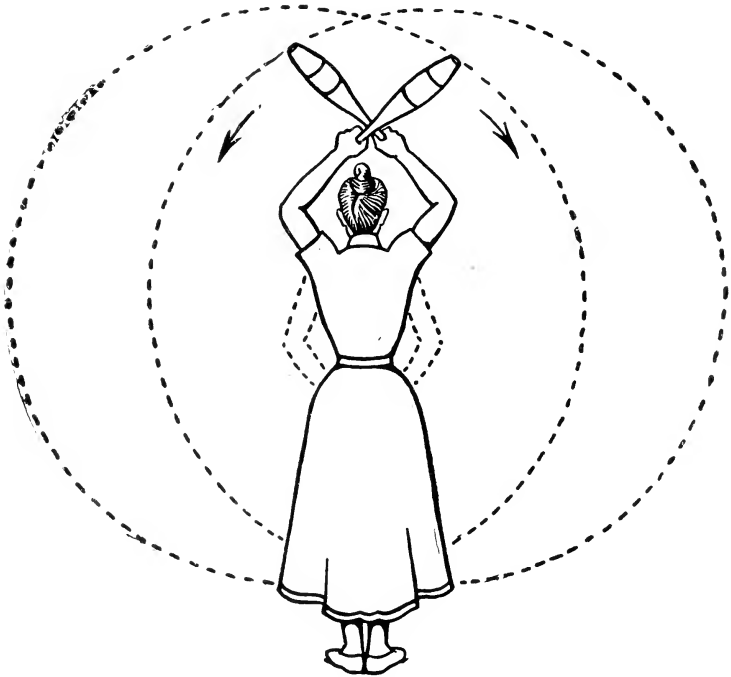


FIG. 19.
INWARD SWEEPS.

Sweep inward—Right. Sweep inward—Left. Together.
" " " " " " "
" " " " " " "

CHANGE—By bringing the clubs again to a perpendicular poise on each side of the head, and then unite the last three moves in one; *i.e.*, giving them in succession—one of each.

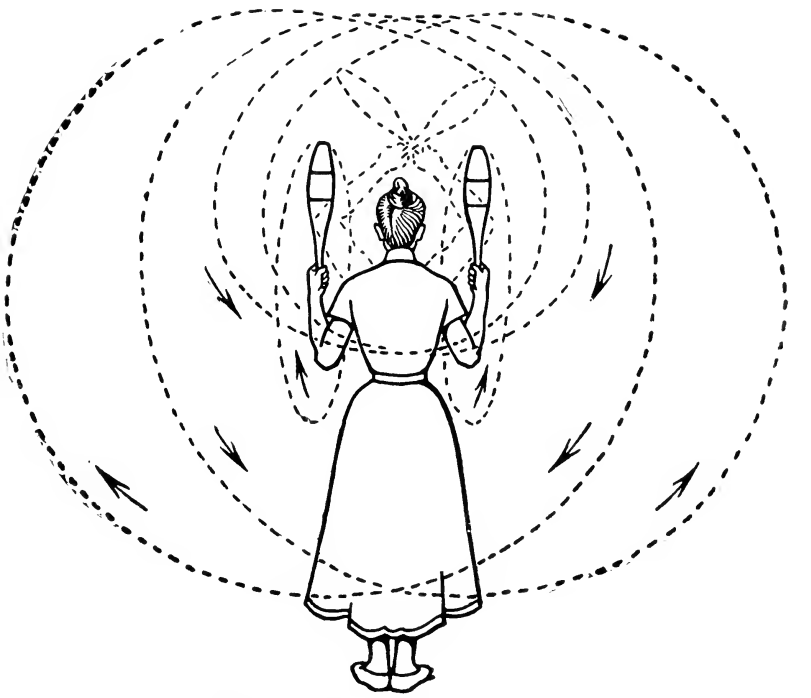


FIG. 20—SIDE—INWARD—SWEEP.

Small sides—Small inwards—Sweeps.

" " " " "

" " " " "

" " change.

CHANGE—By bringing the clubs again to a perpendicular poise, and swing them to small circles toward the left, as shown by position of clubs in Fig. 10. Then turn the body quickly to the left—without moving the left foot. Make small side-circles once. Sweep the clubs together, bringing them up on the *right* side. Turn the body right—without moving the right foot and make small side-circles once. Sweep the clubs back to the left side and repeat. Both clubs should fall together—only one club being visible to any one sitting directly opposite.

FIG. 21—SMALL SIDE—LEFT AND RIGHT.

Small side—Left—Sweep. Small side—Right—Sweep
" " " " " " "
" " " " " " " Omit sweep

CHANGE—By halting the left club as it points up till the right club points down. Instead of the clubs falling simultaneously, they now fall successively, in the same direction.

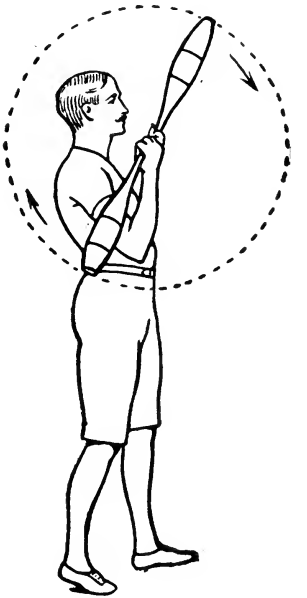


FIG. 22.
ALTERNATE.

Small sides.	Down—Right.		**Down—Left.**	
	"	"	"	"
	"	"	"	"

CHANGE—By halting the right club when it points up, till the left club also points up. Continue the small side-circle *forward,* with the *left* hand, but *reverse* the small side-circle with the *right* hand. Again both clubs fall simultaneously, though in *opposite* directions.

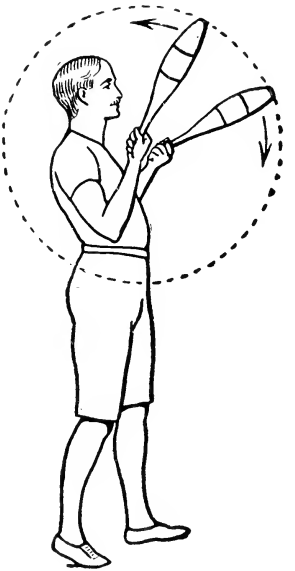


FIG. 23.

REVERSE.

Small sides.	Forward—Left.	Reverse—Right.	
"	"	"	"
"	"	"	"

CHANGE—By halting both clubs when vertical, make *small sides* and sweep to the left. Turn the body to the left without moving the left foot. Make small sides as soon as the clubs come up on the left side; then make small circles again, but pass both clubs *inside* the arms; then again small circles *outside;* then thrust both clubs under the arms, as shown in the illustration. Then toss the clubs up for small circles again. Both clubs fall inside or outside, as the case may be, *at same time.*

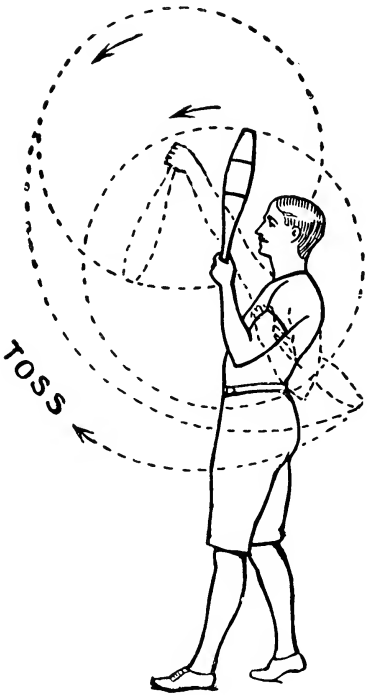


FIG. 24—DOUBLE CHIN KNOCKER.
Small circles—Outside—Inside—Outside—Under. **Toss.**
(Three times each.)

CHANGE—By sweeping the clubs in front—now facing front. Check the right club when the arm and club are perfectly horizontal. Push the left club back of the head and make a small inward, three times, while holding the right hand and club perfectly quiet. Sweep the left club in front, make a poise and drop, and, *as* it drops, sweep the right club down with it.

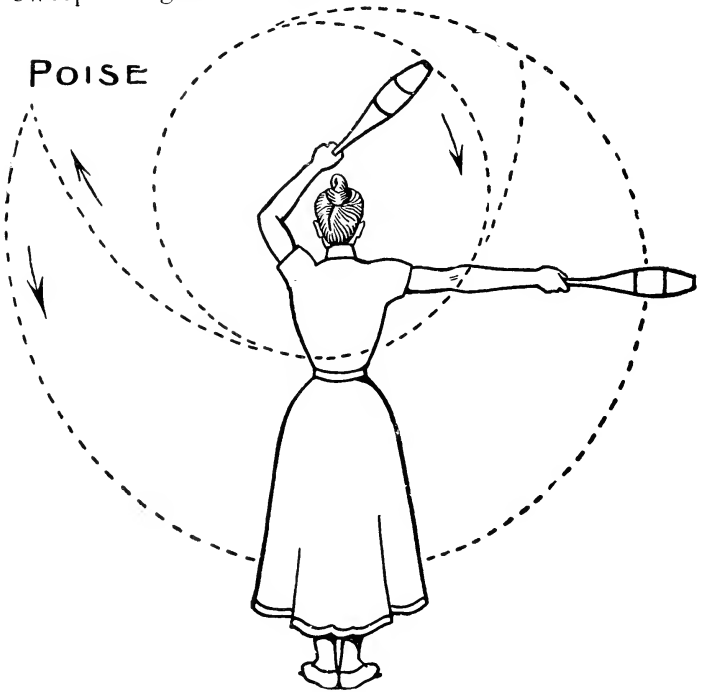


FIG. 25—RIGHT HORIZONTAL.
Horizontal—Right. Inward 1—Left.
" 2 "
" 3 " and sweep.
Poise and drop—Left. Sweep both.

CHANGE—By sweeping the clubs up to the left side, holding the *left* arm horizontal, and passing the *right* club back of the head. Make three small inward circles with the right hand, then sweep in front of the face, and make a poise and drop with the right hand.

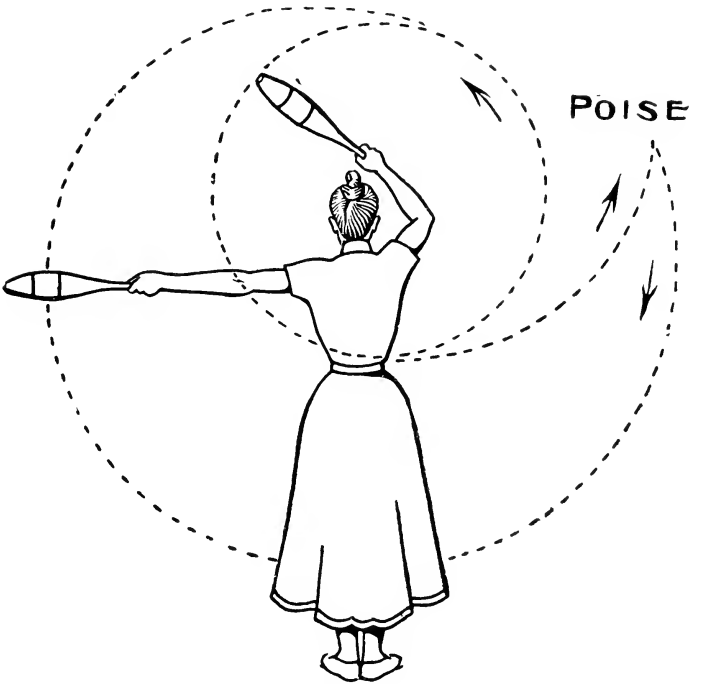


FIG. 26—LEFT HORIZONTAL.

Horizontal—Left. Inward 1—Right.
" 2 "
" 3 " and sweep.
Poise and drop—Right—Sweep both.

CHANGE—By sweeping the clubs to a small circle back of the head, as shown by the position of the clubs in Fig. 10. Turn the body *squarely* to the left, the weight on both feet. Make a small side-circle with the left hand, while the right makes a large side-circle. Then make a small side-circle with the *right* hand, and a *large* side-circle with the left. Both clubs should fall with the same impulse—the one making a large circle, while the other makes a small.

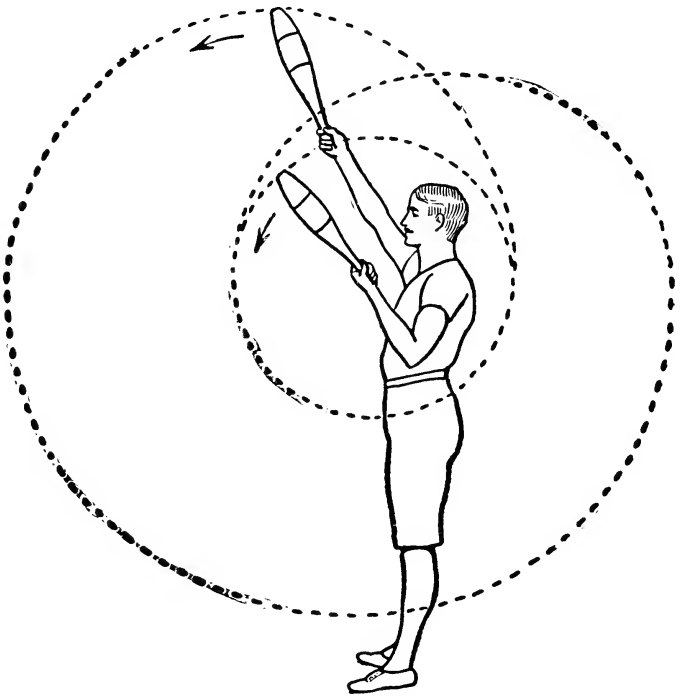


FIG. 27—SHOULDER BRACE.

Small left—Large right. Small right—Large left.
" " " " " " " "
" " " " change

CHANGE—By checking the large side-circle, with the right hand, just as the club has passed a short distance back of the feet. At the same time extend the left arm and club up and forward—pointing exactly opposite the right. Slip the right foot a little back of the left—the momentum of the club on the downward sweep will aid you. With a quick but strong impulse sweep both clubs at once in opposite directions—the left arm makes a large circle forward, the right arm a large circle reversed. Keep the arms *unbent* and close to the body.

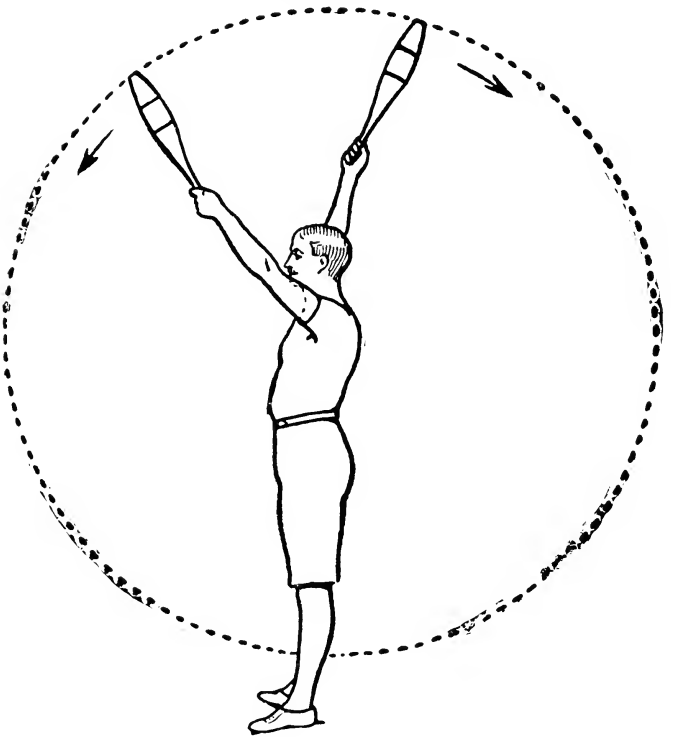


FIG. 28—LARGE REVERSE.

Left and Right—opposite (repeat three times.)

CHANGE—By halting the right club as it sw
front on the third reverse. Let it fall to a
Check the left club as it passes the feet the third time, and bring it up in front with a sweep. It will reach there in time to join the right club as it makes a second small side-circle. Join them (both making a *small side*), sweep them to the front (turning the body front), and pass them back of the head, making small circles back, as shown by position of clubs in Fig. 10. Pass directly to the *windmill*, and add small side alternates (Fig. 22).

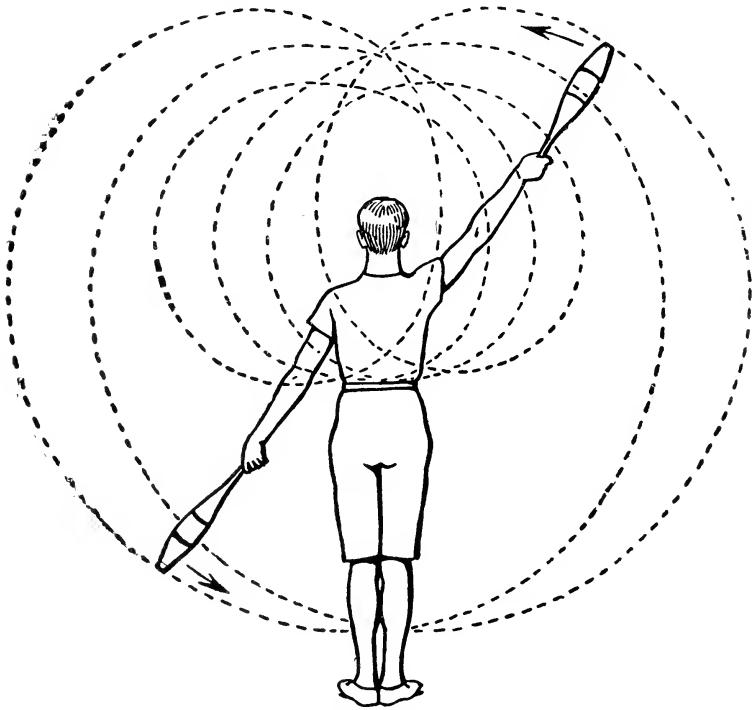


FIG. 29—WINDMILL—ALTERNATE.

Inward right—Outward left—Small side right—Small side left—Sweep right. Sweep left. Repeat three times. Sweep *both*.

THE FINISH

Halt the right club when completing the third small alternate, till the left club comes up on the third small circle. Sweep both in front with one impulse, and pass them back over the head to a small circle, as shown by the position of the clubs in Fig. 10. Follow this with a small side-circle (Fig. 21). Pass the clubs gracefully under the arms (Fig. 24). Keep them there till you have made your bow and exit.

TWO CLUBS

TO TAKE UP BOTH CLUBS ARTISTICALLY

Face front. Stand between the clubs. Fold the arms. With the first note of the music unfold the arms, raise the hands above the head and sweep them down to the side. Bend the body, take the clubs with sufficient impulse to sweep them a short distance back. Straighten the body, and this will give the clubs an impulse forward. Sweep them up high enough in front to make small side-circles (Fig. 17), then small circles back of the head (Fig. 10), then, turning the body quickly to the left, make small side-circles (Fig. 21), halting them in position of Fig. 1—two clubs.

I herewith present my *system* of exercises:

CONDENSED FOR CONVENIENCE—TWO CLUBS.

No. 1. Point Left. Right—Left.
" "
" "

No. 2. Small left—Large right. 1-2-3. Sweep.

No. 3. Small right—Large left. 1-2-3. Sweep.

No. 4. Alternate. Left—Right.
" "
" " sweep.

No. 5. Backward drop. Right—Left.
" "
" "

No. 6. Forward drop. Left—Right.
" "
" "

No. 7. Outward left—Backward drop, right.
" "
" "

No. 8. Alternating outward. Left—Right.
" "
" "

No. 9. Alternating inward. Right—Left.
" "
" sweep

No. 10. Small back circles. 1—Sweep.
2 "
3 change.

No. 11. Left—Right—Both 1
" " " 2
" " 3 change.

No. 12. Windmill. 1-2-3.
No. 13. Side and inward—Left side. 1-2-3.
No. 14. Side and inward—Right side. 1-2-3.
No. 15. Alternate. Left—Right.
" "
" "

No. 16. Right—Left—Right—Left—Sweep—Sweep.
" " " " " "
" " " " Halt.

No. 17. Small sides. 1-2-3.
No. 18. Small inwards. 1-2-3.
No. 19. Double inward sweeps. 1-2-3.
No. 20. Small sides—Inwards—Sweeps.
" " "
" " "
" Turn.

No. 21. Small sides, left—one. Small sides, right—one.
" " two. " " two.
" " three. " " three.

No. 22. Alternate. Right—Left.
" "
" "

No. 23. Reverse. 1-2-3. Sweep to left side.
No. 24. Out—In—Out—Under. Toss.
" " " " "
" " " " "
" and sweep.

No. 25. Right—Horizontal.
Left—Inward. 1-2-3. Sweep.
" Poise and drop.
Take it along (the right club).

No. 26. Left—Horizontal.
Right—Inward. 1-2-3 Sweep.
" Poise and drop.
Take it along (the left club). Sweep—turn.

No. 27. Shoulder brace. Left—Right.
" "
" reverse.

No. 28. Large reverse. 1-2-3.

No. 29. Windmill and alternate. 1-2-3.

Pass the clubs under the arms, and make your bow and exit.

SPALDING'S ATHLETIC LIBRARY

INDIAN CLUBS and DUMB BELLS

BY

J. H. DOUGHERTY

PUBLISHED BY THE

AMERICAN SPORTS PUBLISHING COMPANY

45 ROSE STREET, NEW YORK

INTRODUCTION.

Physical culture is a subject on which volumes yet remain to be written before its necessities are fully grasped or generally understood.

Professors of the art have increased and multiplied throughout the country and yet doctors, hospitals and cemeteries are as liberally patronized as in the dark ages.

Certain favored classes have made a practical study of the subject and reaped golden benefits. Students have had its theory and practice drilled into them at college and have come forth into the battle of life with the physique of gladiators. Elaborately fitted gymnasiums have sprung up in every city and developed specimens of manhood which an Olympian champion might envy. This progress is cheering as far as it goes:

But how far does it go?

The classes have undoubtedly mastered the subject, but have the masses been benefited?

Take any one of the thousands of young men who scramble out to business in New York or any other large city every day after bolting a nominal and tasteless breakfast, and ask him about his health and habits. The answer will only vary as regards his freedom or otherwise from actual disease. Beyond this he knows nothing on the subject. His habits, he will assure you, are quite regular. He rides direct to his business every morning; stands at his desk, or counter or case for ten or twelve mortal hours at a stretch; rides direct home again, bolts his supper, reads the paper and goes to bed.

Is this man living, in the true sense of the word?

No! He is slowly but surely decaying, without ever having bloomed.

He has occasionally thought of joining a gymnasium or athletic club but never found the spare time. He has perhaps taken a cursory glimpse through some learned essay, lecture, or intricate work on physical culture and was momentarily impressed but did not see how it affected him personally.

It is principally for such men this little treatise is compiled. They can grasp its theories during the homeward ride and practically ap-

satisfy themselves in a quarter of an hour after rising in the morning or before going to bed at night that the great secret is theirs.

The only artificial outfit needed is a pair of Indian clubs and dumb bells. With these, a spark of healthy manliness and ambitious enthusiasm, a man can accomplish as much in an attic bedroom, or on the roof in mild weather, as will transform him in the course of a year.

But a youth may argue, as one did recently with the writer "The investment would feed me for a week."

Granted; but there is no visible improvement in the body at the end of a week's, or even a years's, liberal board.

The toiler goes out patiently day after day and week after week to drudge—for what—a living.

All the necessaries and luxuries he can stuff himself with from steak to ice cream in a life time won't make him feel what it is to be alive like rational exercise of those parts of his system which have to lie dormant during his business.

God may have created him to earn his bread by the sweat of his brow to the bitter end, but that does not justify him in neglecting the symmetry of the Image he represents.

Better to aim at having "a combination and a form indeed where every god did seem to set his seal to give the world assurance of a man."

In a country like ours, says Professor Blaikie in his admirable work, where the masses are so intelligent, where so much care is taken to secure what is called a good education, the ignorance as to what can be done to the body by a little systematic physical education is simply marvelous.

Few persons seem to be aware that any limb, or any part of it, can be developed from a state of weakness and deficiency to one of fullness, strength and beauty, and that equal attention to all the limbs, and to the body as well, will work a like result throughout.

One of the most effective and agreeable means of attaining these objects is

CLUB-SWINGING.

There is a fascination about this exercise that grows on one with his proficiency. The exertion or strain is rarely felt after the primary motions are mastered. As soon as the beginner realizes that the tendency of the club, from its special formation, is to describe a circle, if not prematurely checked in its course, he has crossed the only stumbling block. After that he has only to think of a movement, and, as a practical instructor puts it, "the clubs do the rest."

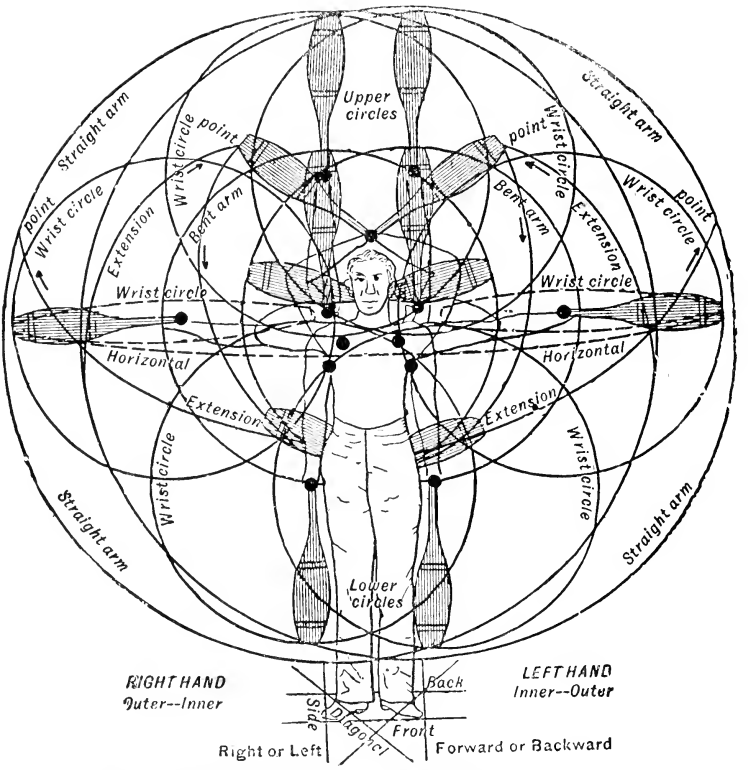
The present generation is the first which had an opportunity of enjoying the exercise in this country. It will not, however, be the last, as the Indian club, unlike many equally modern innovations, has come to stay. Its title indicates its origin. When the Britishers proceeded to civilize, and incidentally to annex, India, they were surprised to find the natives marvelously expert in swinging clubs in various graceful and fantastic motions.

The English officers were not slow to recognize the superior development of those most addicted to the pastime. One of them alludes to the then novelty as follows: "The wonderful club exercise is one of the most effectual kinds of athletic training. The clubs are of wood from four to twenty pounds, and in length about two feet and one half."

"The exercise is in great repute among the native soldiery, police, and others whose caste renders them liable to emergencies where great strength of muscle is desirable. The evolutions which the clubs are made to perform, in the hands of experts, are exceedingly graceful."

"Besides the great recommendation of simplicity the Indian club practice possesses the essential property of expanding the chest and exercising every muscle of the body concurrently."

The club exercise soon after was introduced into the British army as part of the drill. In due course its popularity spread to this country and its use may now be described as universal. Indeed, the enthusiast was about right who exclaimed, "No home is properly furnished without at least a pair."



THE PRINCIPLES OF CLUB SWINGING. FIG. 1.

In the engraving the black spots represent the handle of the club and the centre of the circle made by the end of the club in going around. The hand being held nearly stationary.

The lines at the feet of the figure, show the manner of varying the movements by swinging in front, behind, at the side and diagonal to the front of the body.

Any circle done in one direction can be reversed and swung in the opposite direction.

Any circle done while the hand is held in any of the nine positions can be done with the hand at any of the other positions.

By understanding this, and the proper method of combining the circles into double movements, the pupil will be able to invent combinations including any two or all of the circles,

Accuracy is of the utmost importance in the practice of the exercises described in this book. This should be thoroughly understood as no skill can be acquired when the movements are done in a careless or awkward manner.

It would perhaps be better to first practice the movement without the clubs, turning the arm and wrist in the proper manner until the idea is perfectly clear, then proceed with the club.

In selecting clubs the beginner should be careful not to get them too heavy for the difficult movements; a club which can be held at arms length and made to describe a wrist circle, is best, and the exercise which would be obtained by continuing their use a moment or two longer would be more beneficial than the strain of swinging a heavy one a shorter time.

It is best to learn the names of the different circles and movements, as it gives a much clearer understanding of them than could be secured otherwise. In the single movements the circles describe the circle itself. In the double, the name indicates a movement by showing the relation the arms bear to each other in completing a circle.

In practicing, stand erect, expand the chest, square the shoulders and slightly elevate the chin, look straight to the front, lean a little forward so as to have the weight centre on the balls of the feet, have the heels two inches apart with the toes spread at an angle of forty-five degrees. If there is a line in the floor or carpet, it would be well to stand facing it; make the club follow this line as nearly as possible.

First bring the club to the starting position, with the hand opposite the right breast, the elbow pressed to the side, the knuckles turned out and the club extended vertically.

Start every Circle or Movement from this position. When only one club is used let one arm hang pendant at the side. If a Straight-Arm circle is to be done, elevate the club at arms length to a point directly above, then proceed.

First make the club describe an inner-circle, that is, start it toward the head or centre of the body. Then describe the same circle at the side, that is, at right angles with the line. Then the same diagonally with the line, next describe the same circle in the opposite direction or outer, starting away from the head or body, and so on through the three circles as before. Then try another circle the same, and as soon as all the single circles have been mastered take both clubs and proceed in the same manner.

If at first the club wrenches the wrist in making the circles, try some other way of holding it, as the whole secret of doing the difficult movements is in the manner in which the club is held in the hand.

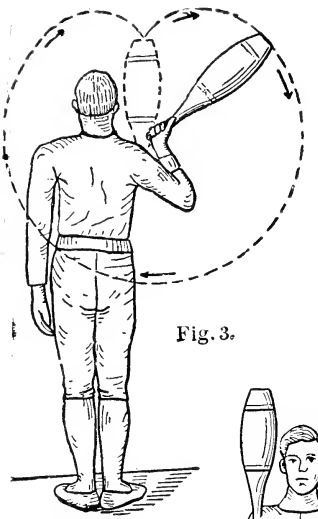


Fig. 3.

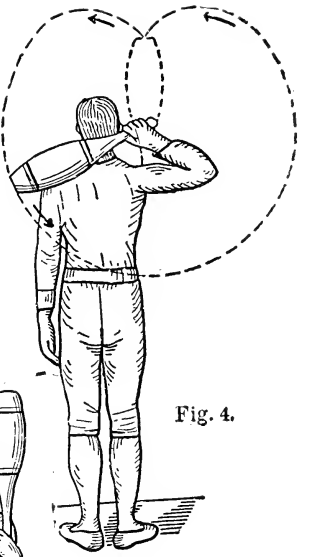


Fig. 4.

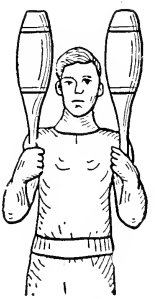


Fig. 5.

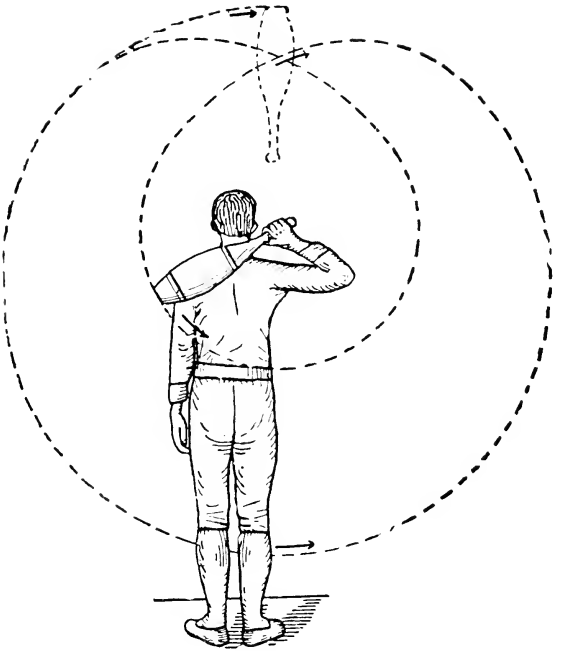
BENT-ARM CIRCLES, BACK. Fig. 3 and 4.

Hold the club in the starting position, raise the arm and drop the club over the shoulder, make a complete circle behind the back, and repeat. Allow the wrist perfect freedom, do not hold the club too tight as it will make the movement awkward. In the inner circle let the hand pass from the top of the head to the back of the neck.

With the right hand drop the club to the right for the outer circle and to the left for the inner circle, and the reverse with the left hand.

Endeavor to swing the club squarely, and let the evolutions be perpendicular and parallel to the line in the floor.

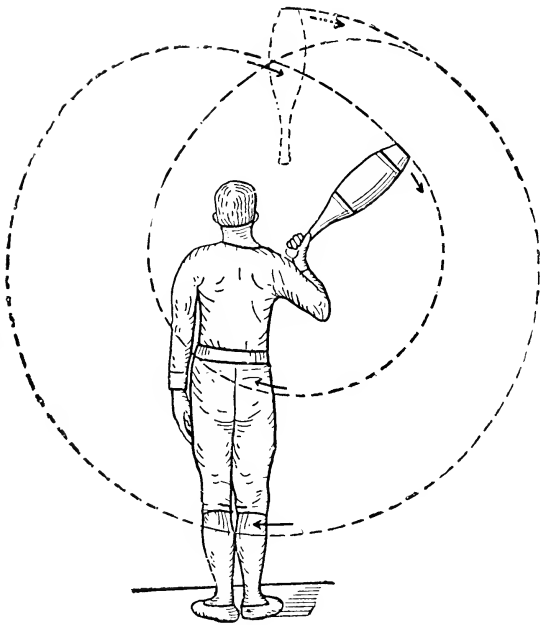
The only difference between the inner and outer circles is the direction of swinging them.



INNER MOVEMENT. Fig. 5.

This movement combines the inner bent-arm circle, back of the shoulder and the plain straight-arm movement or sweep in front of the body, thus making a circle within a circle.

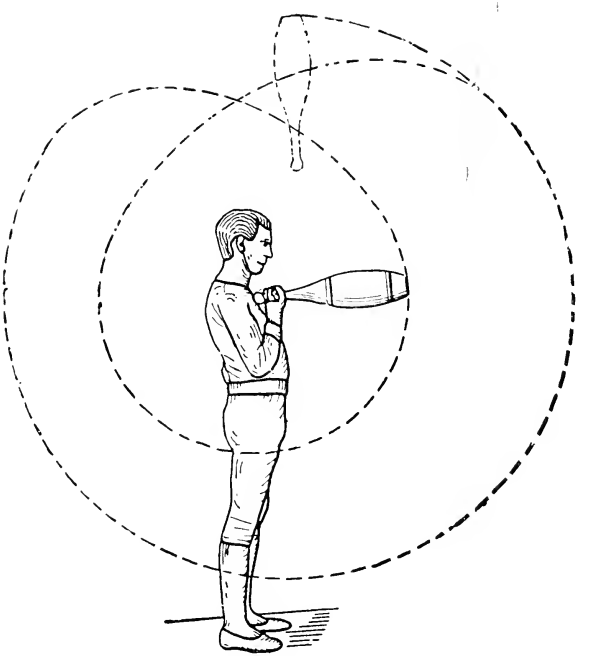
Execute the same with the left hand carrying the club to the right instead of the left.



OUTER MOVEMENT. FIG. 6.

This movement combines the outer bent-arm circle back of the shoulder and the straight-arm circle in front of the body.

When finishing the bent-arm circle, raise the arm and extend it straight vertically before starting the straight-arm circle.



SIDE MOVEMENT. Fig. 7.

From the starting position, drop the club forward or back, letting it turn loosely in the hand, finish the bent-arm circle with a straight-arm, both circles being complete.

The circles should be made at right angles to the floor line. Repeat with the left hand.

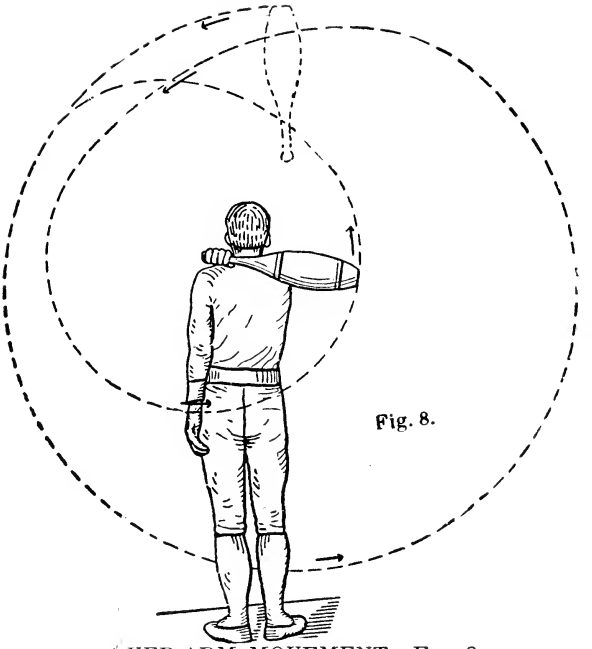


Fig. 8.

OVER-ARM MOVEMENT. FIG. 8.

From the starting position raise the arm and extend it across to the opposite shoulder. Drop the club over it and make it describe a complete circle behind the back. Throw the head back to allow the arm to go over the shoulder as far as possible.

Finish with a straight-arm circle and repeat. Execute the same with the left hand. Reverse to the inner movement.

UNDER-ARM MOVEMENT. FIG. 9.

Extend the arm not in use horizontally. Drop the club with the arm reaching as far as possible, turn the knuckles out and describe the circle behind the back, with the hand close up under the opposite arm.

In the movement combine the straight-arm with the under-arm circle. Reverse to outer-circle. Execute in the same manner with the left hand.

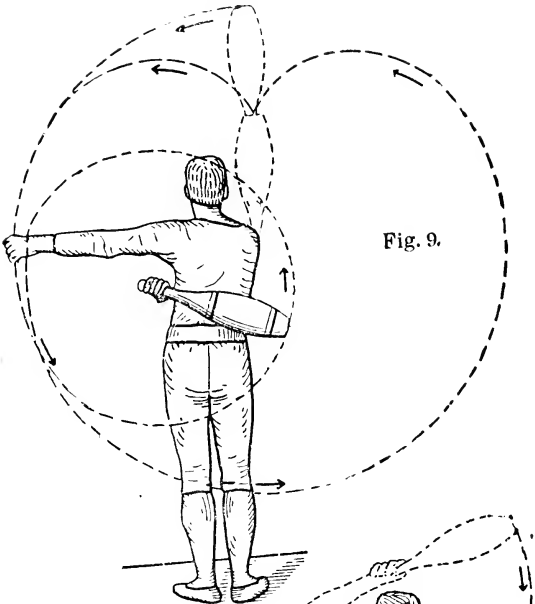


Fig. 9.

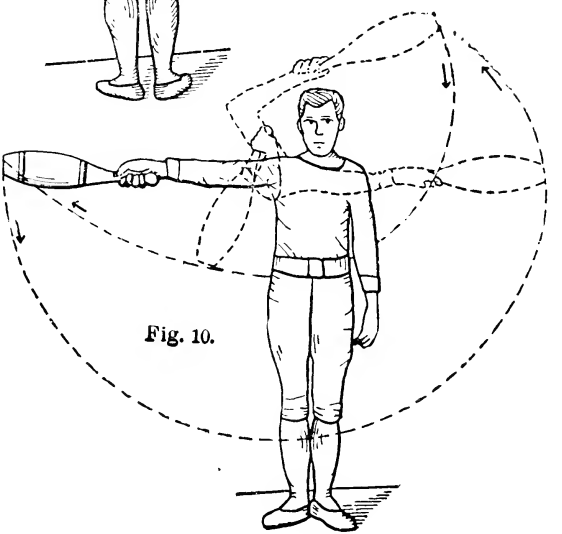


Fig. 10.

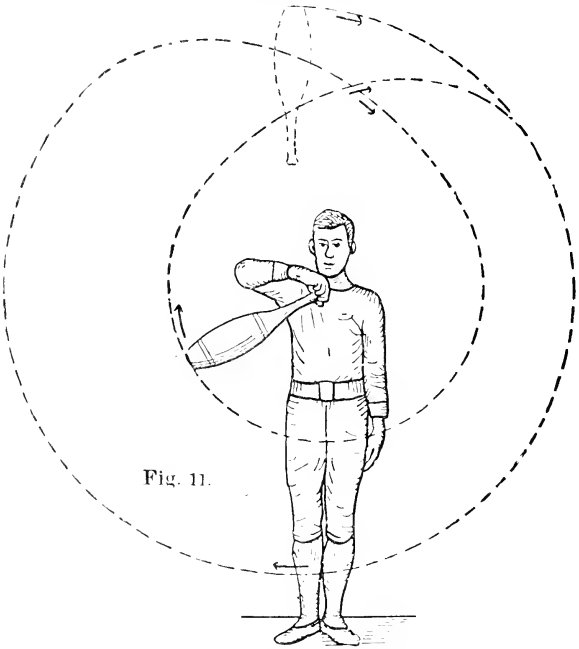


Fig. 11.

BENT-ARM CIRCLE, FRONT. Fig. 11.

Hold the club loosely in the hand, taking hold of the ball of the handle, turn the palm out and drop the club down and around. Keep the hand nearly stationary, allowing the wrist the necessary freedom.

Finish with a straight-arm circle.

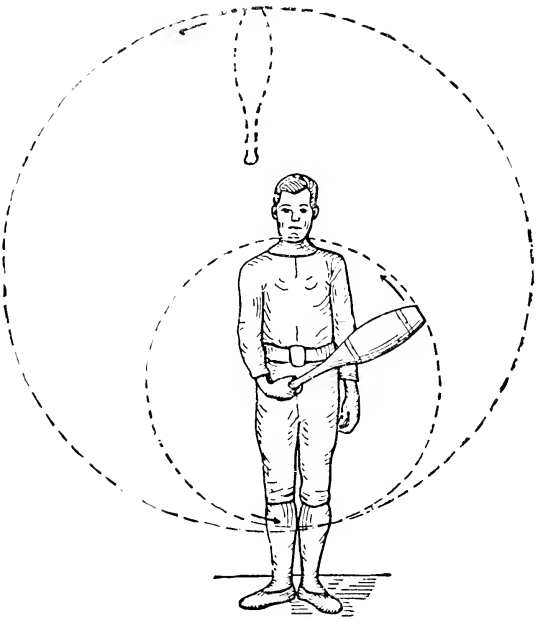
Repeat, reverse and execute with the left hand.

EXTENSION MOVEMENT. Fig. 10.

Raise the arm and point the club at an angle of forty-five degrees upward, drop the club down behind the head and around until it is in a horizontal position, then straighten the arm, from this position drop the club and pass it down in front of the body and up to the changing point.

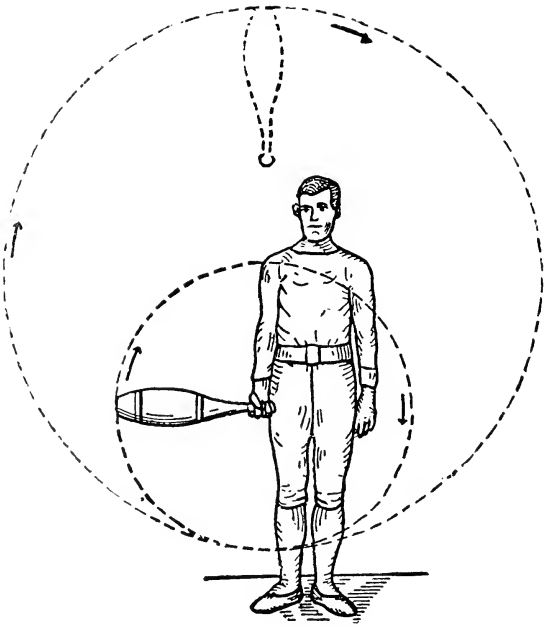
Reverse the movement, making the club pass in the opposite direction.

Execute in the same manner with the other hand.



INNER, LOWER WRIST-CIRCLES, IN FRONT. Fig. 12.

From the straight arm circles swing the club around while the arm remains stationary and pendant, using the strength of the wrist and holding the handle firmly. Finish with the straight-arm circle. Execute the same with the left hand.



OUTER, LOWER WRIST-CIRCLES, IN FRONT. FIG. 13.

From the straight arm circles swing the club around while the arm remains stationary and pendant, using the strength of the wrist and holding the handle firmly. Finish with the straight-arm circle. Execute the same with the left hand.

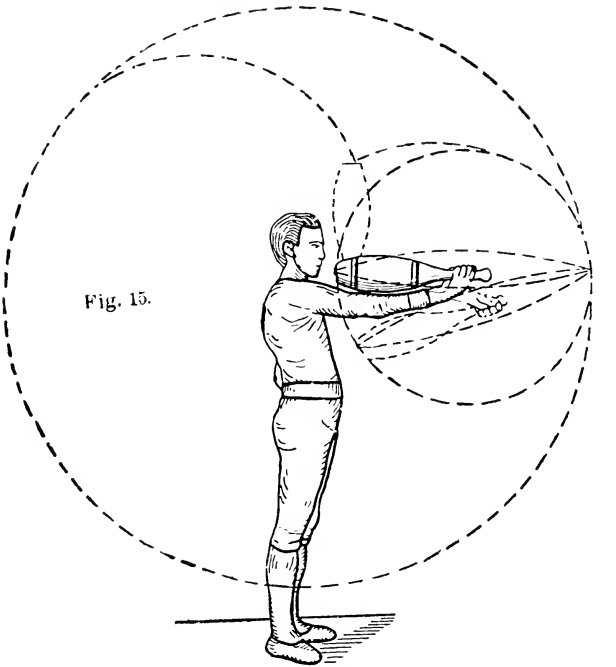


Fig. 15.

EXTENDED-ARM WRIST-CIRCLES. Fig. 14 and 15.

Turn the club in the hand, horizontal, to the right or left above or under the arm, or forward or backward on either side of it.

Let the club roll in the hand and endeavor to keep it perfectly horizontal or vertical. When swung in front finish with a straight-arm circle. Keep them stationary.

DIAGONAL CIRCLES. Fig. 17.

Swing the arm diagonal to the floor line, first on one then on the other side of the body. Vary by holding one arm out and swinging the other under it.

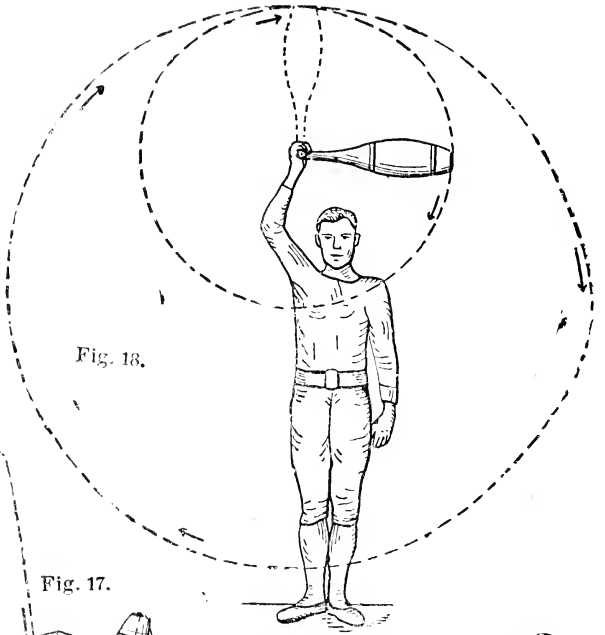
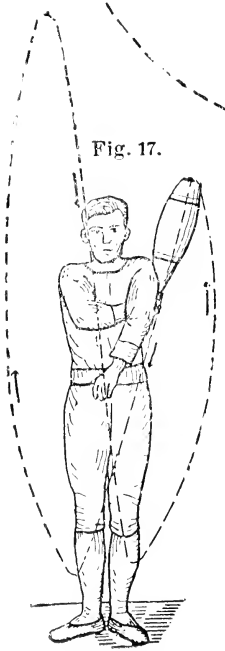


Fig. 18.

Fig. 17.



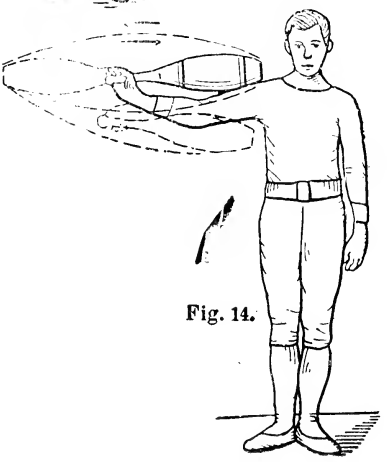


Fig. 14.

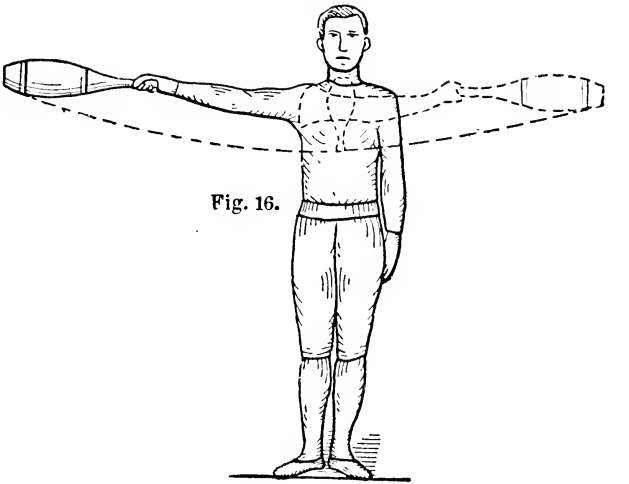


Fig. 16.

HORIZONTAL-CIRCLES. Fig. 16.

For the Outer Horizontal circle, hold the club at arms length on a line with the shoulder. Pass the arm to the front, giving the club a half turn outward so that the end of it will be under the chin, complete the circle with the club, passing the arm to the opposite side, then back in the same manner. Understand that the arm makes only a half circle while the club makes one and a half.

For the Inner Horizontal, turn the club in towards the face and across to the opposite side, the arm moving as before. Make a half circle with both arm and club.

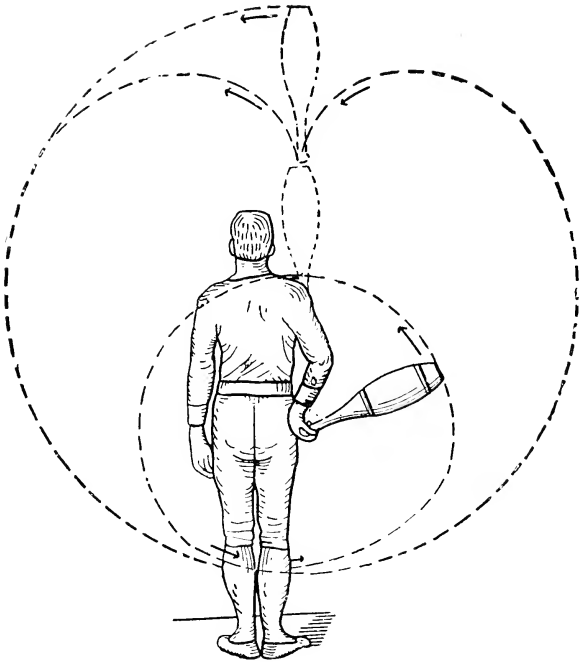
This movement can be varied by making the club describe the circle on a line over the head, keep it horizontal as before.

Finish with the lower half of the straight-arm circle.

UPPER WRIST CIRCLE. Fig. 18.

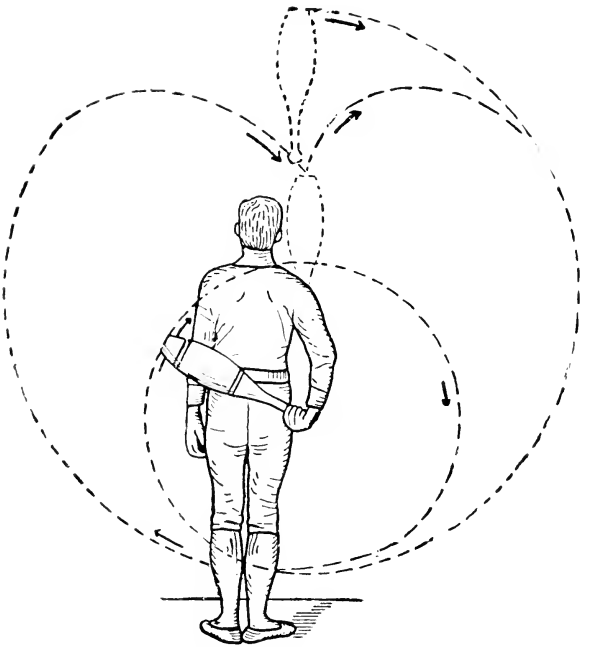
After a straight-arm circle, and when the arm is extended vertically let the club drop down and by a jerking movement of the hand make it describe a wrist-circle, then complete the straight-arm circle and repeat.

Swing either to the right or left and repeat with the left hand.



OUTER, LOWER, WRIST-CIRCLE, BACK. Fig. 19.

Hold the club loosely in the hand or have the handle between the first and second fingers, turn the palm out. Start with a straight-arm circle, give the club sufficient force to carry itself around, allowing the wrist to turn with the club. Stop the arm suddenly, when down straight, make a wrist-circle with the club and finish with a straight-arm circle. Repeat, then execute the same with the left hand.



INNER, LOWER, WRIST-CIRCLE, BACK. Fig. 20.

Start with a straight-arm circle, turn the palms to the rear, stop the arm suddenly when down straight, turn the wrist out and allow the club to describe a circle behind the back, the hand following the club to the centre of the back.

Finish with a straight-arm circle.

Repeat and execute the same with the left hand.

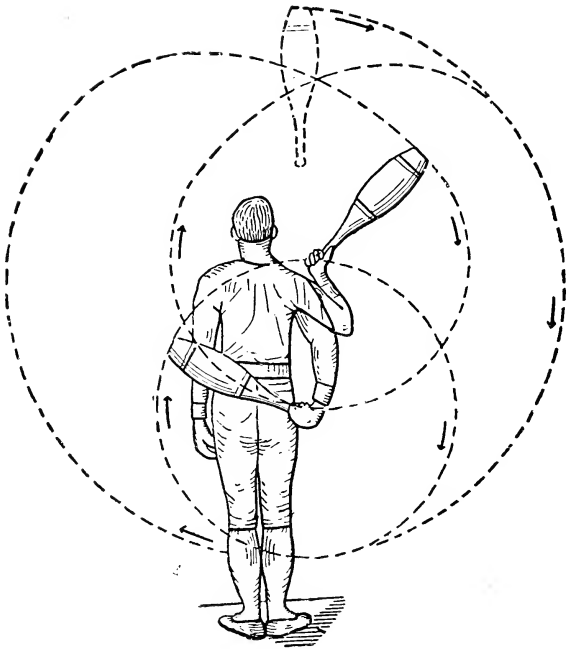
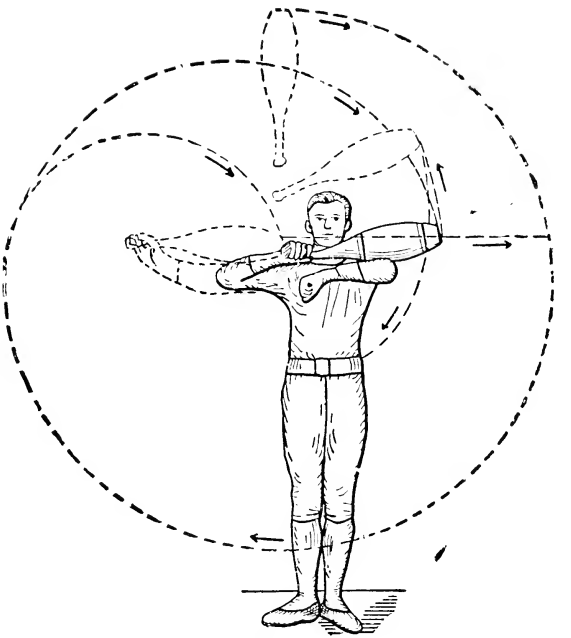


FIG. 21. Illustrates the manner of combining one or more circles into a distinct movement.

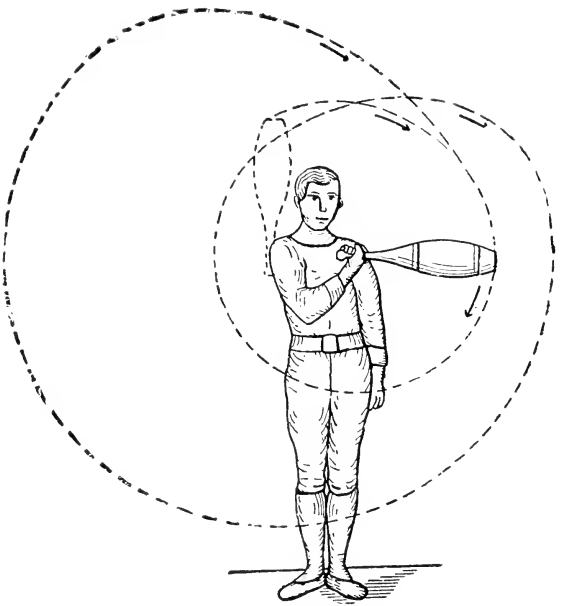
Straighten the arm after each circle.



STOP OR SLAP ON THE ARM. Fig. 22.

In bringing the arm to a horizontal position, allow the club to pass over and drop smartly on the arm and rebound, reversing the circle. Also by crossing the clubs when extended vertically and slapping them on the opposite arms, then throw them up again, reversing the circle, or extend them out to the sides.

Also by throwing them up and dropping them over the head and finishing with an extension movement.



FRONT BENT-ARM CIRCLE.

Bring the shoulder forward, hold the hand in front of the opposite shoulder, turn the palm out, carry the club around for a complete circle and finish with a Straight-Arm circle. This circle is made principally by the action of the hand and wrist. Reverse, swinging with the other hand.

The double movements are simply FOUR different ways of combining the single circles.

The circles described comprise all there is to club swinging. When they are thoroughly mastered with either hand so as to be swung either to the right or left, forward or backward and the same diagonal, they can with ingenuity and patience, be formed into an endless variety of beautiful, intricate and difficult evolutions, by combining the circles.

Any number of circles can be formed into one combination by counting while practicing.

In Single Time, count one for the circle of both hands. That is, in making a straight-arm PARALLEL Fig. 23, or CROSS movement Fig. 24, count 1, add a bent arm circle, count it 2, viz, 1-2, 1-2, etc.

In Double Time, count one for each circle of each hand. That is, in making a straight-arm FOLLOW movement, Fig. 25, count it 1 and 2, add a bent-arm circle, count it 3 and 4, viz, 1-2-3-4, 1-2-3-4, etc. Always count as many numbers as there are circles in the combination.

The REVERSE movement Fig. 26, can be done either in single or double time.

The best method for learning the double movements is as follows. Hold the clubs in the starting position, go through the movement several times with the right hand, then do the same with the left. Repeat, making one circle less with each hand, and continue, making one less each time, until the movement is done once with each hand. Then count the circles and proceed, counting as directed.

When the movements and circles have been mastered sufficiently well to allow it, the interest in the exercise will be increased by arranging a routine of movements so as to have them in groups, with all the changes which are in them, in the order in which they should come, with the easy movements first and the most difficult last.

To become an artistic and graceful performer, it is necessary to do every movement in perfect time and with the greatest precision thus combining grace and elegance. If the club is to be held perpendicular let it be exactly so; if horizontal exactly horizontal. Describe all the circles and sweeps squarely to the side or front, and do not swing too fast. Where you can have the benefit of a large mirror, it will be a valuable assistance in exhibiting defects and correcting awkwardness, and it will also assist in developing countless variations and movements. The latter affording an ample field for ingenuity and skill incombination, and with patience and perseverance, the pupil will soon become the master of a beautiful and beneficial accomplishment.

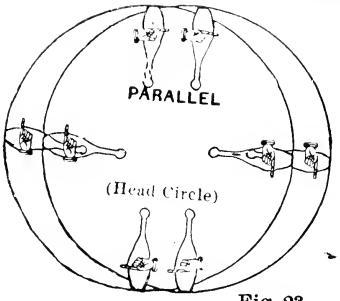


Fig. 23.

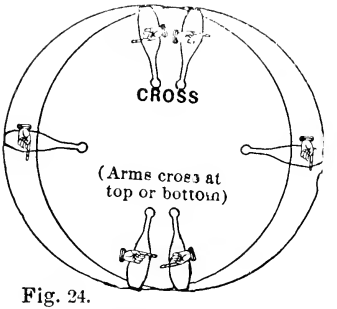


Fig. 24.

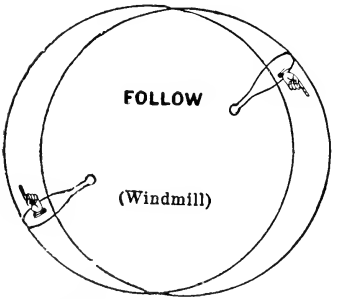


Fig. 25.

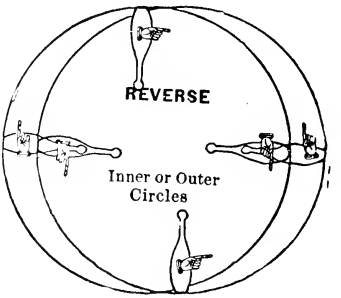
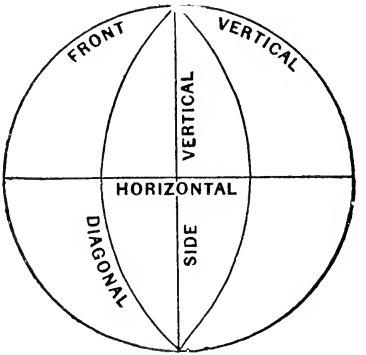


Fig. 26.



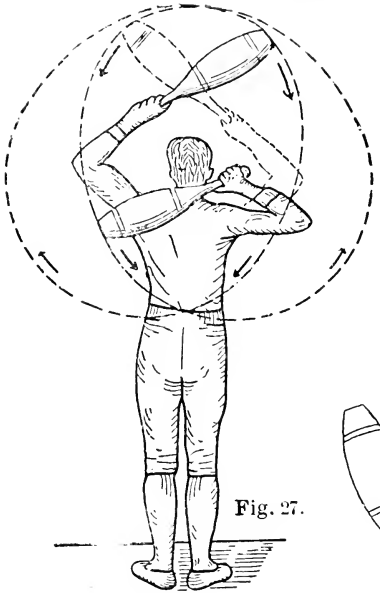


Fig. 27.

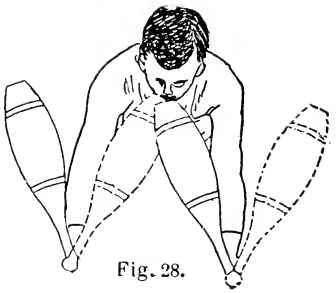


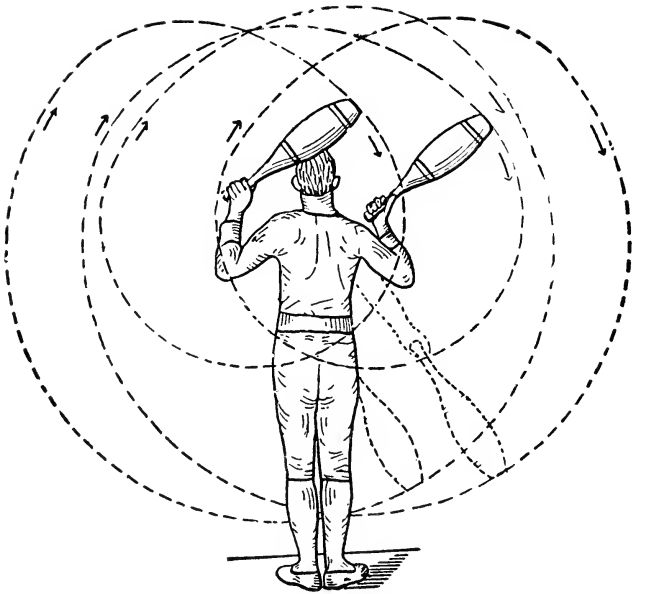
Fig. 28.

DOUBLE BENT-ARM MOVEMENT. FIG. 27.

As an illustration of simplicity of the double movements the figure here shown will be a fair example. The movement shown is a combination of the inner and outer bent-arm circles. By crossing the clubs above the head a Cross movement is made. By swinging one in advance of the other a Reverse movement is executed and by passing them both in the same direction a Parallel movement is the result.

EXTENDED-ARM CIRCLES. FIG. 28.

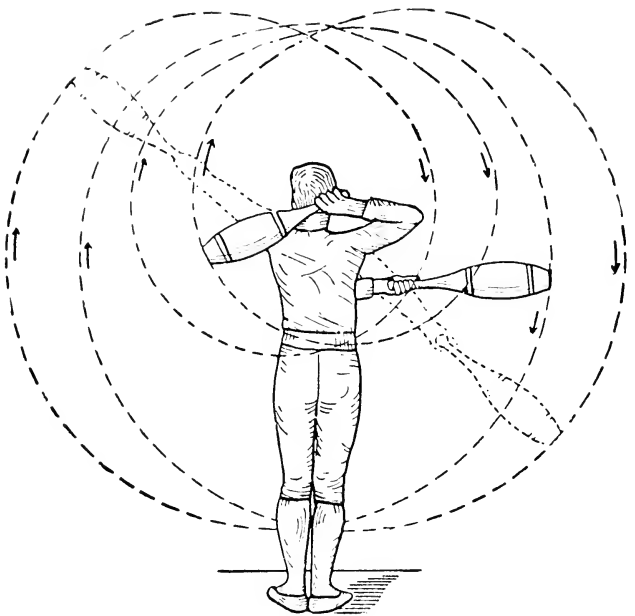
The figure illustrates the manner of doing these circles with two clubs. Swing the clubs: 1st. Outside of the arms. 2nd. Inside. 3rd. To the Right of both. 4th. To the Left. Either Forward or Backward. They can be done Parallel, Cross, Follow or Reverse, in Front and at the Side.



PARALLEL MOVEMENT. FIG. 29.

This movement is a combination of the Inner and Outer circles, the clubs moving parallel for a complete circle.

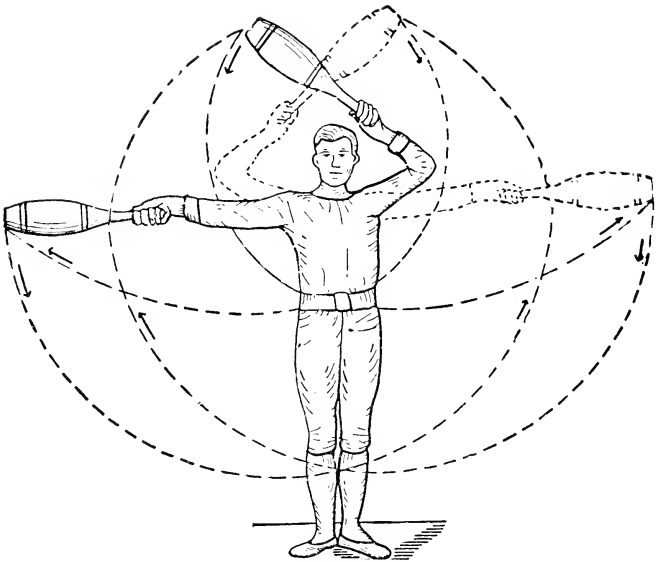
It is of great importance to thoroughly understand that the descriptions of double movements are not only for the Straight-arm circles, but also for every circle described in the Single circles. They can all be done in the ways described, and any two or more can be combined.



FOLLOW MOVEMENT. Fig. 30.

This movement is the same combination as the Parallel, the clubs following each other like the arms of a windmill, retaining the same relative position for a complete circle.

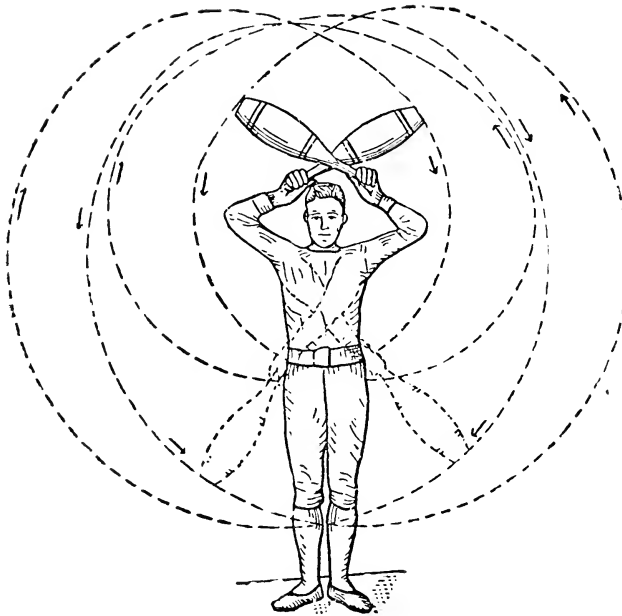
A back circle either upper or lower must be added to allow the clubs to pass each other.



DOUBLE EXTENSION MOVEMENT. FIG. 31.

The double Extension is a combination of half a Straight and half a Bent Arm circle, and can be done Parallel, Cross, Reverse or Follow. It can also be combined with any of the circles by doing the Extension with one club and the circle with the other, arranging the count, to allow the clubs to pass each other without breaking the time.

These combinations of half circles should receive due attention as it is the only way to reverse from Right to Left or to change from one movement to another without breaking the time.

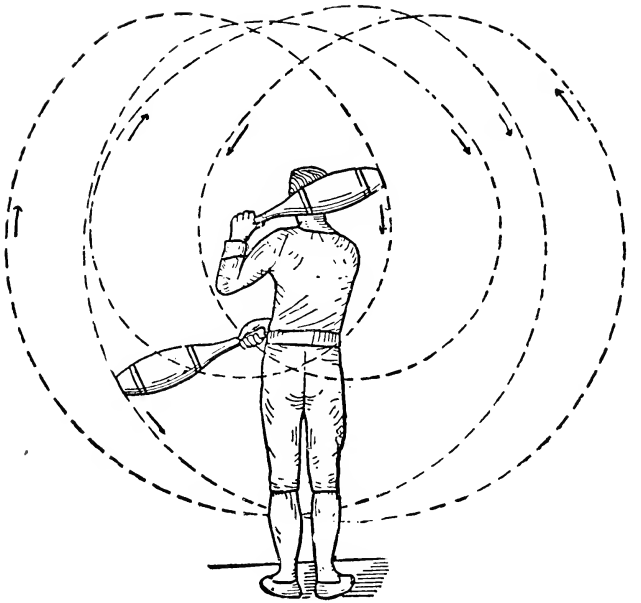


CROSS MOVEMENTS, INNER OR OUTER. Fig. 32.

For the Inner Cross-circles, start by crossing the arms or clubs at the top of the circle and separating them at the bottom, coming together and crossing as before at the top.

For the Outer Cross-circle, start by separating the arms or clubs at the top and crossing them at the bottom.

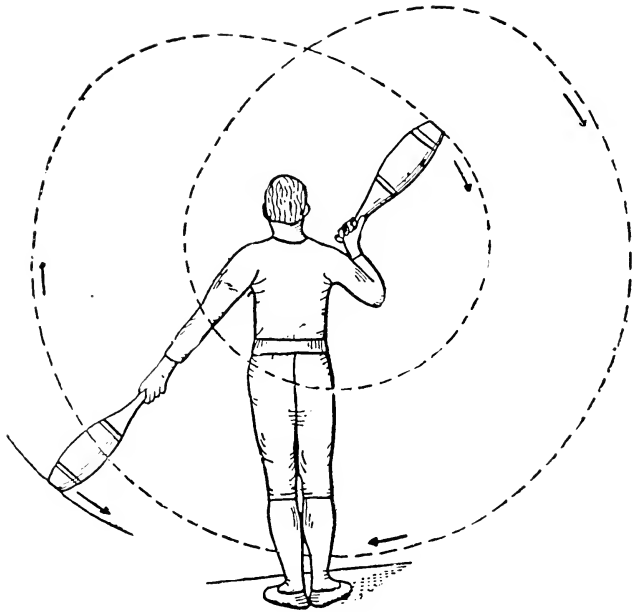
Combined with the Lower Back or Front circles this movement becomes very pretty.



INNER REVERSE MOVEMENT. FIG. 33.

The Inner Reverse movement is the Inner Straight and Bent-Arm circles combined, the arms or clubs crossing and separating at the sides of the circle. Start by swinging one half of a circle with one hand before moving the other, then move both toward each other passing at the outermost part of the circle, repassing at the opposite side.

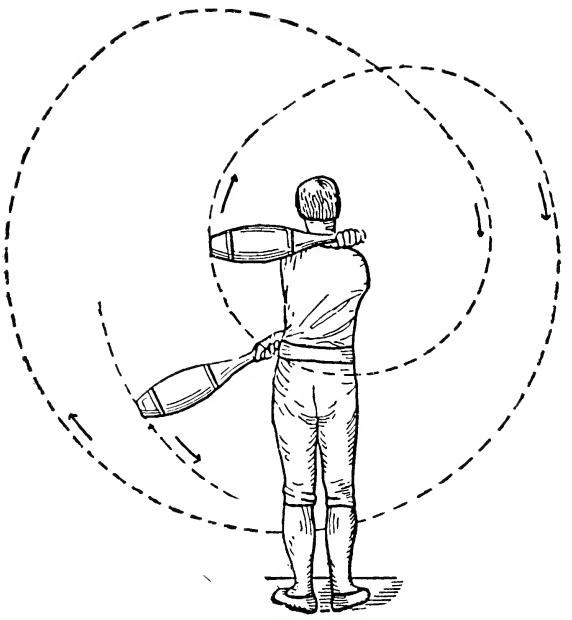
To combine the Straight and Bent-Arm circles, as in the figure, start both clubs in the opposite directions at the same time, make the right hand club describe a complete Inner Bent-Arm circle, while the left describes an Inner Straight-Arm circle, the clubs regaining the starting position together. Then repeat, making the left hand club describe the Bent-Arm circle and the right the Straight-Arm circle.



OUTER REVERSE MOVEMENT. FIG. 34.

The Outer Reverse movement is the Outer Straight and Bent-Arm circles combined, the arms or clubs crossing and separating at the sides of the circles. Start by swinging one half of a circle with one hand before moving the other, then move both toward each other passing at the outermost part of the circle, repassing at the opposite side.

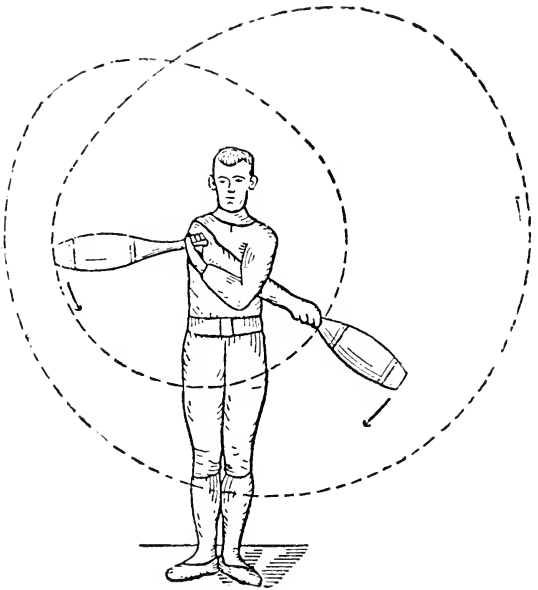
To combine the Straight and Bent-Arm circles, as in the figure, start both clubs in opposite direcitons at the same time, make the right hand club describe a complete Outer Bent-Arm circle, while the left describes an Outer Straight-Arm circle, the clubs regaining the starting position together. Then repeat, making the left hand club describe the Bent-Arm circle and the right the Straight-Arm circle.



OVER-ARM MOVEMENT. Fig. 35.

This movement is swung the same as the Inner and Outer Reverse movements and the same directions should be followed.

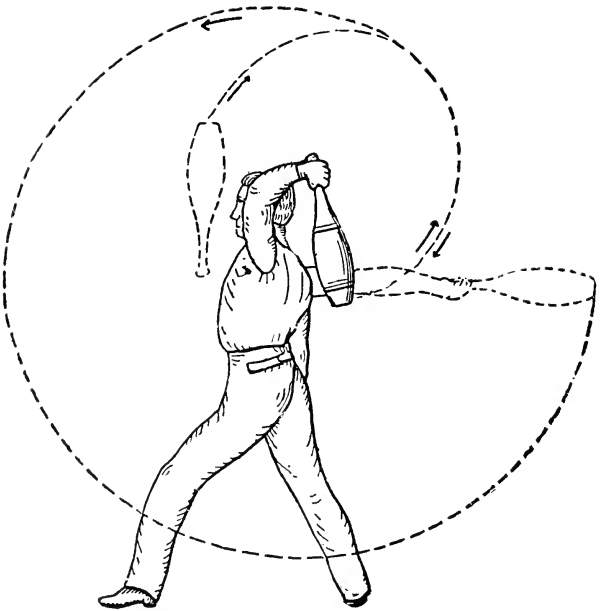
Throw the head well back and extend the arms to their greatest length to allow the clubs to make a graceful circle over the shoulder.



FRONT BENT-ARM MOVEMENT. Fig. 36.

For this movement follow the directions given for the Inner and Outer reverse circles.

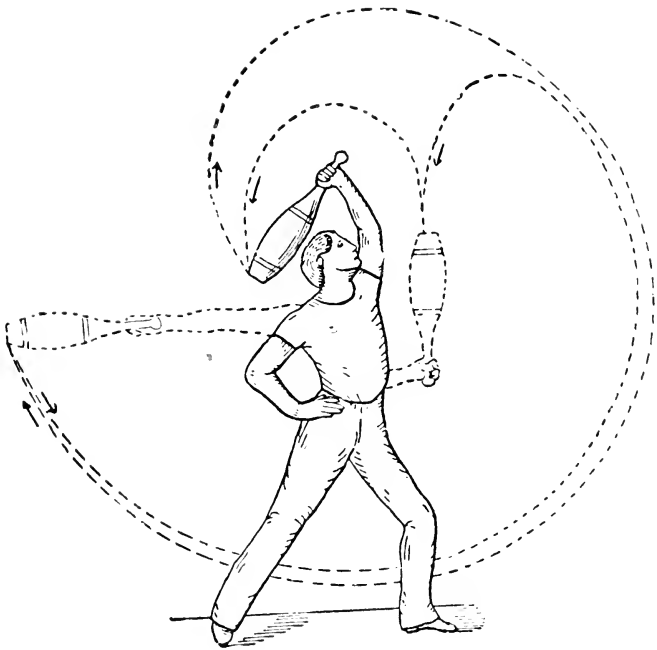
Extend the arms to full length and compress the shoulders forward to allow the necessary action of the arm, making the Bent-Arm circle.



EXERCISE FOR HEAVY CLUB. Fig. 37.

Stand with the feet well braced, as in the figure. From the Starting-Position raise the club and drop it over the head and let it hang behind the back, then reverse the movement passing the club with arms extended, around in front and up to a horizontal position behind the back.

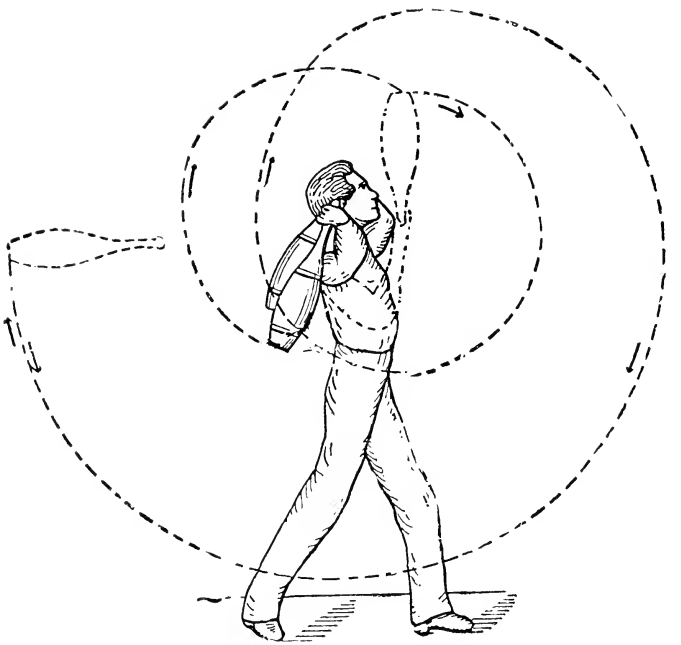
Vary the movement by passing the club to the right or left of the body.



SECOND EXERCISE. Fig. 38.

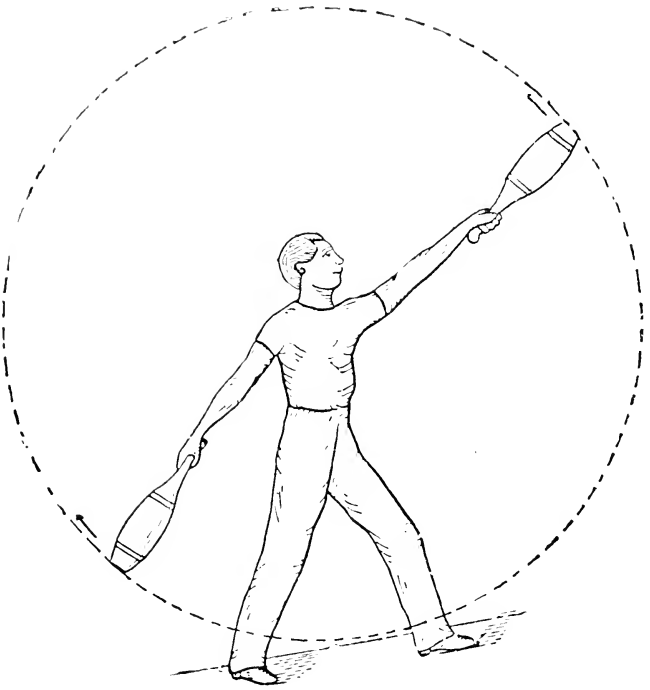
Raise the club, drop it over the shoulder, extend the arm to full length, pass the club in a full sweep in front of the body and as far up behind as possible, then reverse the movement, carrying the club to the Starting-Position before repeating.

The movement over the head should be made principally with the wrist.



THIRD EXERCISE. FIG. 39.

This exercise is similar to the preceding one and for two clubs. Raise the clubs from the Starting-Position, drop them behind the back, bending the arm as much as possible, then return them to the Starting-Position, make a Bent-Arm circle at the side and in finishing it extend the arms and make a full sweep in front, past the side and up behind the back to a horizontal position. Then reverse the movement and return to the Starting-Position.



STRAIGHT-ARM EXERCISE. FIG. 40.

Extend the arm full length, pass the clubs in opposite directions describing full circles. Reverse the movement. Vary the movements by swinging both clubs in the same direction but having them at opposite sides of the circle.

Turn the body from side to side to assist the movement of the arms.

DUMB BELL EXERCISE.

The dumb bell has been used in this country so generally that it has come to be regarded as indispensable to proper development.

Its weight and substance are apparent on a casual inspection but its wonderful influence on all branches of training is only fully understood by the initiated.

Its exercises give fair employment to all parts of the body and to both sides equally.

If the muscles in the left side and arm of the beginner are much weaker than the others as is almost invariably the case, additional attention to the left hand exercises will soon equalise matters.

In purchasing dumb bells the same precautions should be taken as advised for Indian clubs. Except the beginner is unusually robust he cannot get them too light. They may be replaced by heavier ones as he progresses in expertness and strength.

The modern wooden bells are more generally recommended than metal ones as they are not so chilly to the touch or noisy in contact with each other or on the floor.

The various positions and movements in which the bells may be used are directly and powerfully conducive to erectness of carriage and freedom of limb.

In exercising, keep the head up, and breathe deep and full, allowing the chest to expand to the utmost. The time to take a full breath is when the muscles are relaxed.

The only drawback to the universal popularity and adoption of dumb bells as a means of exercise confronts almost every beginner, not only in the privacy of his room but in the majority of gymnasiums where the instructor is not thoroughly conversant with the rudiments.

The writer can recall numberless instances, where a youth started practicing with dumb bells at home or in some slovenly conducted gymnasium. The method, or, rather, lack of method, was to plug away with rapidly waning energy for a couple of weeks at a few uncouth motions he had either conceived or heard were the proper thing. At this stage the wearisome monotony of the daily grind became unbearable and he dropped the bells permanently in disenchanted disgust.

This difficulty can be easily avoided by beginning properly with the simplest movements. The first few of these thoroughly mastered and committed to memory lead him on by agreeable graduations into the more complicated motions, and his enthusiasm develops in proportion with his muscles.

To lay the foundation for a proper course of exercises effectively undivided attention should first be given to the practice of a series of motions without the bells. They are almost indispensable to a thorough enjoyment of the bell exercises at a later stage and are besides very attractive and beneficial in themselves.

Indeed so permanent is their fascination, that while empty headed and callow youths ignore them as childish, accomplished gymnasts and muscular prodigies such as Prof. George Goldie, New York Athletic Club, and President W. B. Curtis, of the Metropolitan Association, rarely turn out to their daily avocations without going through the whole series with undimmed enthusiasm and belief in their efficacy.

They are here appended in such simplified form that the point may be taken at a glance.

Marginal key words are given in italics to catch the eye and assist the memory.

Place the book open at this page on a rest within range of your eyes, take a mark on the floor or carpet as a guide line and go ahead.

If you have a roommate or convenient companion of similar tastes, you might coach each other in turn from the book and establish a mutual benefit association on which you can draw for life.

FIRST PRACTICE.

Attention.—Position of attention, the toes to the line.

Step to the rear.—Make a full step to the rear with the left foot, the right following.

Step to the front.—Resume the first position.

Step to the rear.—As before.

Left foot forward.—1. Pass hands to the rear across small of back grasping the right arm just above the elbow, with the right hand supporting the left arm under the elbow. 2. Make a half face to the right, by turning on the heels, so that the back of the left heel touches inside of the right, and the left foot is pointed straight to the front. 3. Make a full step to the front with the left foot, the right remaining firm and flat on the ground, the knee braced well back, the hip pressed forward,

the head upright, the chest advanced, shoulders flat, the eyes directed to the front.

Recover.—Bring the left foot back to the right.

Right foot forward.—1. Face to the left, the right foot pointed to the front.

2. Step out with the right foot as with the left foot forward.

Recover.—Bring the right foot back to the left.

Step to the front.—1. Make a half face to the right and bring the hands down by the sides to the full extension of the arms.

2. Step to the front, resuming the first position at the line.

Stand at ease.—Draw back the right foot six inches, placing the hollow of it against the left heel, bringing the weight of the body upon the right leg, the left knee a little bent. Bring the hands together in front of the body, striking the palms smartly together and slipping the palm of the right hand over the back of the left, chest advanced and eyes directed to the front.

Attention.—Position of attention the toes at the line.

Astride.—Place the left foot ten inches on the left of the line, toes pointed to the front and slightly turned outwards, the right following at the same distance on the right, the knees slightly bent, arms hanging straight by the sides.

Ready.—Bend the knees until they jut over the toes, keeping the heels on the ground at the same time. Stoop from the waist and bring both hands to the centre of the line, the hands closed and together, the thumbs together, knuckles to the ground.

Up.—Straighten the back and lower limbs. At the same time bring the hands close up by the sides and carry them to the full extension of the arms above the shoulders. This extension may be repeated six times.

Halt.—Lower the hands to the sides and come to the position of attention behind the line.

Step to the rear.—As before.

Step to the right.—Make a full step to the right front at the angle at which the toes are pointed from the position of attention, the left following.

Step to the left.—1. Make a half face to the left.

2. Make a full step to the left with the left foot, the right remaining flat and firm on the ground, the knee braced back and at the instant that the foot meets the ground let the left hand grasp the thigh just above the knee, the thumb inside, the fingers outside, the lower part of the leg and left arm forming a straight

and continuous line from foot to shoulder, the right arm remaining extended in the line of the right leg.

Face to the right.—Turn on the heels facing to the right reversing the position of both lower and upper limbs.

BELL EXERCISES.

Having become thoroughly familiarized with the foregoing, take your dumb bells, place them on the line and come to attention with your toes touching them.

EXERCISE I.

Step to the rear.—As in first practice.

Left foot forward.—Make a half face to the right and step to the front with the left foot as in first practice, the left hand grasping the thigh just above the knee as the foot comes to the ground, the right arm extended in the line of the right leg.

Right hand.—Seize the bell with the right hand the lower limbs remaining in position.

Up.—Raise the bell above the shoulder bending the arm during the ascent to the full extension of the arm leaning strongly on the left knee and pressing the chest to the front during the ascent of the bell.

In this position the left leg to the knee and the left arm should form one continuous line from foot to shoulder.

Down.—Lower the bell, replace it on the line and recover as in first practice.

Right foot forward.—As in first practice and go through previous motion with bell in left hand and recover.

EXERCISE II.

Left foot forward.—As before.

Both hands.—Seize a bell in each hand, arms passing on either side of the knee.

Up.—Raise the bells above the shoulders, bending the arms during the ascent to their full extension, keeping the left knee bent and pressing the chest to the front during the ascent of the bells.

Down.—Bring the bells straight down by the sides, replace them on the mark and recover.

Right foot forward.—And repeat previous motions.

EXERCISE III.

Left foot forward.—As before.

Recovering right hand.—Seize bell in right hand.

Up.—Recover and at same time elevate the bell above the shoulder to full extension of the arm.

Left foot forward.—Step to the front with the left foot, retaining the bell at the elevation above the shoulder and pressing the chest to the front.

Down.—As before, then advance right foot forward and repeat previous motions.

EXERCISE IV.

Left foot forward.—As before.

Recovering both hands.—Seize the bells as in exercise II.

Up.—Recover and at same time raise both bells above the shoulders to the full extension of arms.

Left foot forward.—As before, retaining bells at the elevation.

Down.—As before, and recover.

Right foot forward.—As before, and repeat previous motions.

EXERCISE V.

Step to the front.—As in first practice.

Astride.—As in first practice.

Up and down, ready.—As in first practice, stoop from the waist and seize the bells.

Up and down, up.—The action and position of the ascent as in first practice, carrying the bells above the shoulders.

Down.—Lower the bells, letting them swing to the rear between the legs.

Halt.—Replace the bells on the mark and resume the position of attention.

Step to the rear.—As before.

As you advance in proficiency and strength, either or all of the foregoing exercises may be repeated up to six times. Always begin and end, however, with the performance of those moderate and gentle movements which nearest approach the ordinary motions of your every day life. Abruptness in beginning or ending severe exercise is injurious.

A SIMPLER SERIES.

For any one whose lower limbs are sufficiently exercised in his daily avocations, the following exercises are generally considered adequate. They have not the grace, attractiveness and variety of the preceding ones.

With busy men, however, they are likely to continue more popular, as they occupy less time and attention.

Each motion described is illustrated by a cut, which makes it clear to the veriest novice.

Persons in going through these exercises should remember that by turning the hands they are exercising the muscles of the arm and shoulder differently, and that when the arm is raised its uppermost muscles are doing the work.

It would be also well to glance first, over the preliminary instructions for the other exercises, as to attitude and breathing.

FIG. 1. Hold the bells at the side with the arms pendant. Draw the bells up to the arm pits, turning the wrist as far in as possible. Repeat this and all other movemnets until fatigued.

FIG. 2. Hold the arms horizontally in front, pass them back on a line with the shoulders as far as possible, crossing the arms in returning.

FIG. 3. Raise the bell from the pendant position to a line with the shoulders, turn the palm out and extend the arm vertically. Reverse the movement, resuming the first position.

FIG. 4. Keep the arms straight and swing the bells over the head and as far back as possible, then reverse the direction and swing the arms down past the sides and up behind the back.

FIG. 5. Hold the arms at the side, swing the bells out and up, striking them together over the head. Vary the movement by swinging one bell up and the other down.

FIG. 6. Stand erect, holding the bells at the chest. Step out to the side as far as possible, at the same time extending the arms horizontally. Regain the first position and repeat the movement on the opposite side. Vary the movement by stepping to the front and rear.

FIG. 7. Stand with the legs well spread, extend the arms vertically, bend back as far as possible, then swing the bells down and as far between the legs as possible and up again.

FIG. 8. Bend the legs and keep the back straight, touch the bells to the floor, straighten up and extend the arms high above the head, standing on tip toe.

FIG. 9. Stand with the arms extended over the head, bend gradually down, as far as you can, keeping the arms extended, then slowly resume the upright position and bend to the other side in the same manner.

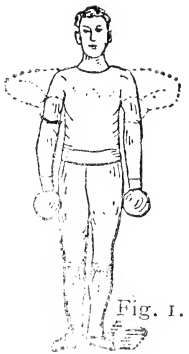


Fig. 1.

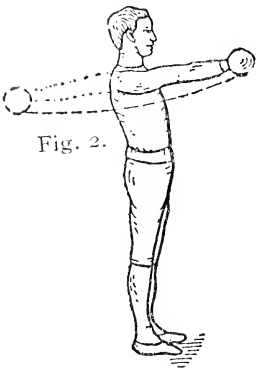


Fig. 2.

Fig. 3.

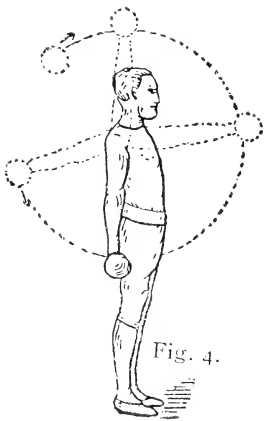


Fig. 4.

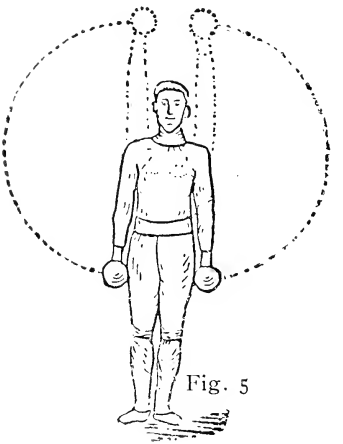


Fig. 5

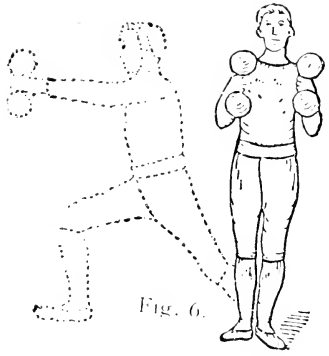


Fig. 6.

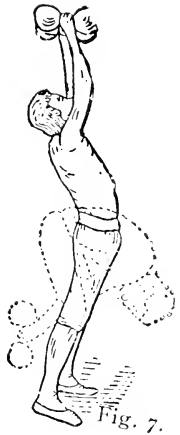


Fig. 7.

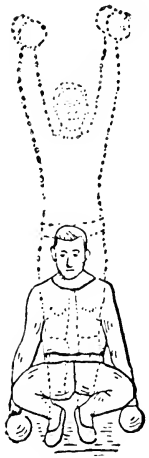


Fig. 8.

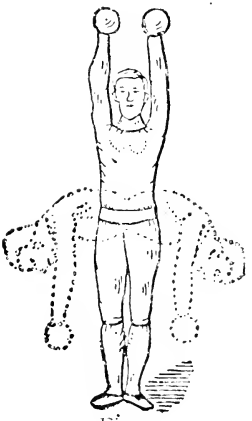


Fig. 9.

SPECIAL EXERCISES.

To improve the biceps.—Stand erect with arms well into the sides and feet planted firmly about nine inches apart.

Curl dumb bells until finger nails come in contact with front of shoulder. Bring the finger nails towards you, turning the hands inward as you raise the bell above elbow. You can vary this motion in several ways which will suggest themselves after a few experiments.

Muscles back of arm and shoulders.—Stand with body erect, step forward with each foot in turn and pass the bells as far as you can stretch behind you with back of hands upward. You can vary this motion also. Another method is to stretch face downwards on a mat or form and pass the bells backward in same manner.

Forearms.—Press elbows to side and bring up lower arms at right angles to body. Then curl the hands with and without the bells without bringing the elbow or any muscle above it into play. Continue until you feel the muscles sufficiently tested.

Chest development.—The method most generally advocated for improving the chest muscles is to stretch on your back on a rug or form. 1. Pick up bells and push them up vertically at right angles with the body, the bells touching. Then open the arms quietly and gradually drop the hands until back of them touches the floor on each side.

2. Lower the arms from their vertical position until the ends of the bells touch the floor as far directly behind your head as you can reach.

Then bring the hands back slowly to their vertical position over the chest. This exercise may be varied by letting the hands drop forward until the ends of the bells touch the floor on each side close to the hips.

The hands may alternate in this movement in various ways.

3. Extend arms at full length behind head with backs of hands resting on floor. Then lift sufficiently to clear the arms and describe a downward semi-circle with each until the bells touch the hips. Repeat in moderation.

4. Starting from previous position, describe a complete circle with each hand, reversing the course of the bells at intervals.

5. Let one arm touch the floor, fully extended at right angles with body; then extend the other arm across the body in same direction as far as possible, without turning off back. Alternate the arms frequently.

EXERCISING WITH PULLEY WEIGHTS

GIVING THE PRINCIPAL MUSCLES BROUGHT INTO ACTION

TAKEN FROM

ANDERSON'S HEAVY GYMNASTICS

ARRANGED BY

HENRY S. ANDERSON

Instructor in Heavy Gymnastics, Yale Gymnasium; Anderson Normal School, Chautauqua University, etc., etc.

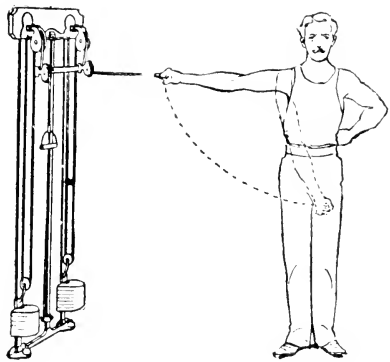
PUBLISHED BY

THE AMERICAN SPORTS PUBLISHING CO.

45 ROSE STREET, NEW YORK

Pulley Weights.

SERIES No. 1—SINGLE ARM WORK.

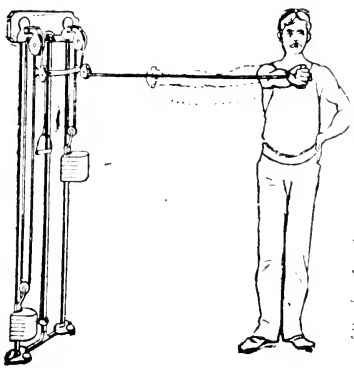


Right Side to Machine.

Right Arm down to Side.

This movement exercises the side chest, part of side, front upper arm and front forearm.

1. Pectoralis Major and Minor.
2. Latissimus Dorsi.
3. Biceps, Flexor Carpi Radialis.

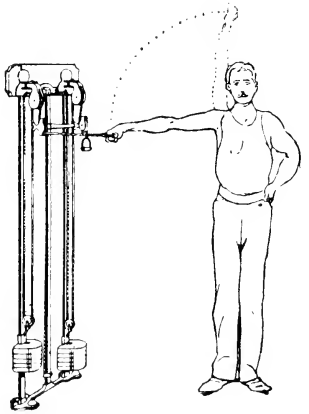


Right Arm front, Shoulder high.

This movement exercises the side chest and shoulder (part), front upper arm, front forearm.

1. Pectoralis Major.
2. Pectoralis Minor.
3. Deltoid.
4. Biceps.
5. Flexor Carpi Radialis.

Series No. 1.—SINGLE ARM WORK—(Continued.)



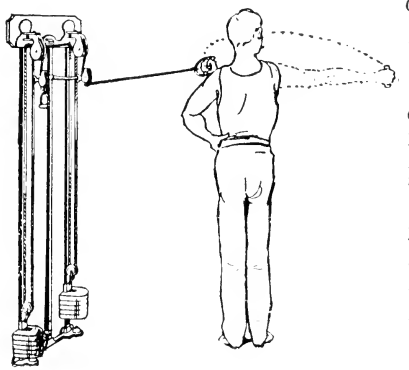
Right Arm up over Head.

This movement exercises the shoulder and side.

1. Trapezius.
2. Supra Spinatus.
3. Infra Spinatus.
4. Serratus Magnus.

The above movements also taken with left hand and left side to the machine.

Series No. 2.—SINGLE ARM WORK.



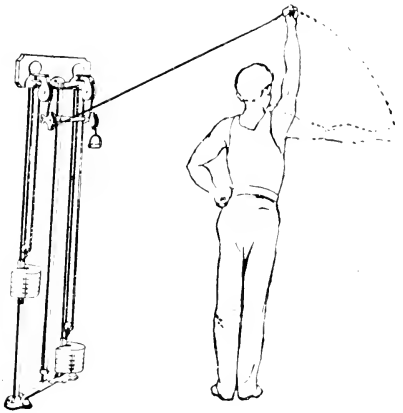
Opposite Side to Machine.

Right arm front of body, flexed.

This movement exercises the shoulder and upper side waist, back upper arm and back forearm.

1. Deltoid.
2. Trapezius.
3. Rhomboideus Major.
4. Rhomboideus Minor.
5. Triceps.
6. Extensor Carpi Radialis.

SERIES NO. 2.—SINGLE ARM WORK—(Continued.)

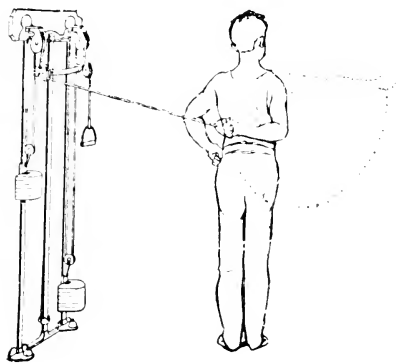


Right Arm up over Head, rigid.

Opposite Side to Machine.

This movement exercises the side chest, front of forearm, back upper arm, back of arm-pit.

1. Pectoralis Major.
2. Triceps.
3. Latissimus Dorsi.
4. Flexor Carpi Radialis.
5. Flexor Carpi Ulnaris.
6. Teres Major.
7. Serratus Magnus.



Right arm back of body, flexed.

Opposite Side to Machine.

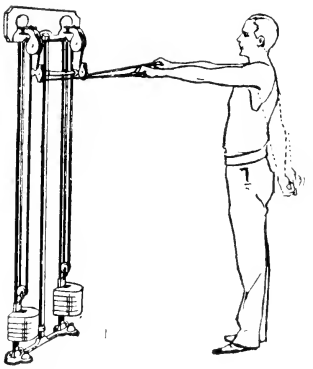
This movement exercises the back, upper arm, part of shoulder and upper side (part).

1. Deltoid.
2. Triceps.
3. Latissimus Dorsi.

The above movements also taken with left hand, opposite side to machine.

Pulley Weights.

SERIES No. 1—DOUBLE ARM WORK.



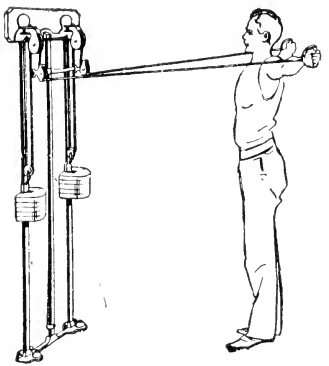
FIRST SERIES.

Giving some of principal muscles brought into action.

Position: Facing Machine.
Both hands drawn to side, 8 counts.

This movement exercises the back upper arm and upper back (part) and upper back waist.

1. Latisimus Dorsi. 2. Trapezius (part). 3. Rhomboideus, major and minor. 4. Teres, minor and major. 5. Triceps. 6. Anconeus. 7. Deltoid.

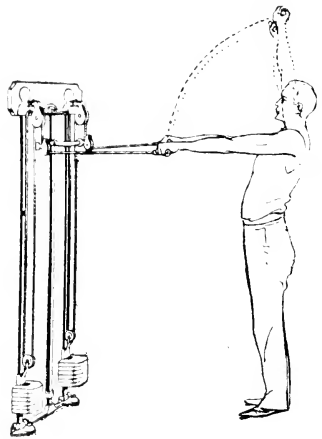


Both hands shoulder high to side, palms in, 8 counts.

This movement exercises the back upper arm and upper back (part).

1. Trapezius (part). 2. Rhomboideus, major and minor. 3. Latissimus Dorsi (part). 4. Deltoid. 5. Triceps. 6. Teres, major and minor.

SERIES NO. 1—DOUBLE ARM WORK—(Continued).

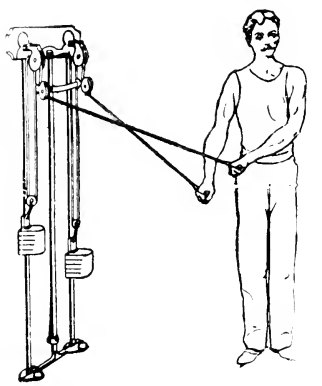


Both hands up overhead, arms rigid, 8 counts.

This movement exercises the full upper back, back of forearm and back upper arm.

1. Trapezius (full) 2. Triceps. 3. Deltoid. 4. Rhomboideus, major and minor. 5. Anconeus. 6. Entensior Carpi Radialis. 7. Extensior Longior.

Place the cords in lower pulleys and sit down to the work; is a much easier way of developing the shoulder and upper back muscles.



Right Side to Machine from Front.

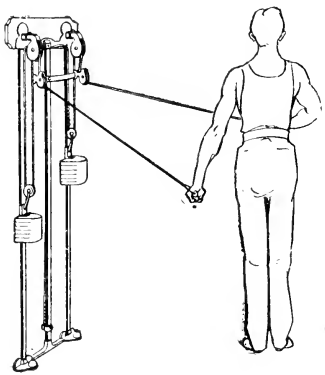
Left hand front, right back of body, 8 counts.

These movements exercise the side, chest, upper side waist on right side, the full shoulder and upper side back waist on left side; also back upper arm.

Right arm and side; 1. Pectoralis, major, 2. Latissimus Dorsi.

Left arm and side; 1. Deltoid. 2 Trapezius. 3. Triceps. 4. Rhomboideus, major. 5. Rhomboideus, minor. 6. Latissimus Dorsi.

Series No. 1—DOUBLE ARM WORK—(Continued).



Left Side to Machine from Front.

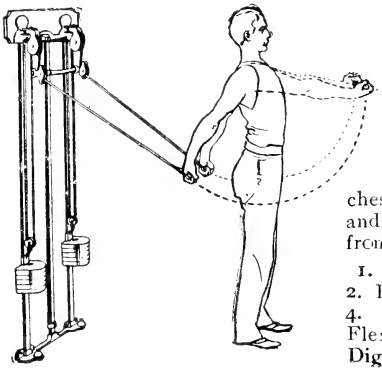
Right hand front, left back of body, 8 counts.

These movements exercise the side, chest, and upper side back waist on left side.

The full shoulder and upper side back waist and back upper arm on right side.

Left arm and side; 1. Pectoralis, major. 2. Latissimus Dorsi.

Right arm and side; 1. Deltoid. 2. Trapezius. 3. Triceps. 4. Rhomboideus, major. 5. Rhomboideus, minor. 6. Latissimus Dorsi.



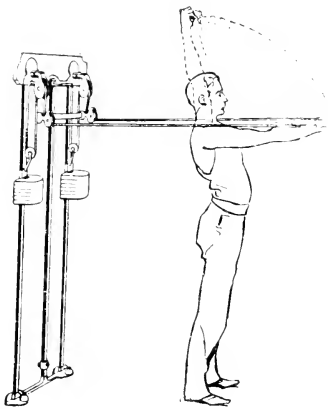
Back to Machine.

Both hands brought down past sides, 8 counts.

This movement exercises the chest muscles, front upper arm and front forearm and part of front shoulder.

1. Pectoralis, major and minor, 2. Brachialis Anticus. 3. Biceps. 4. Flexor Carpi Radialis. 5 Flexor Carpi Ulnaris. 6. Flexor Digitorium. 7. Deltoid (part,)

SERIES NO. 1—DOUBLE ARM WORK—(Continued).

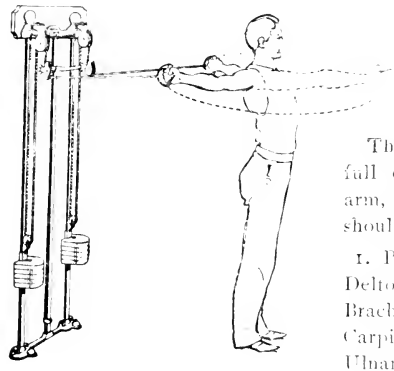


Back to Machine.

Both hands brought up over head, 8 counts.

This movement exercises the abdomen muscles (part), sides of abdomen and chest muscles, front forearm and front upper arm.

1. Rectus Abdominus. 2. Pectoralis, major and minor. 3. Latissimus Dorsi. 4. Biceps. 5. Internal and External Oblique. 6. Flexor Carpi Radialis. 7. Flexor Carpi Ulnaris.



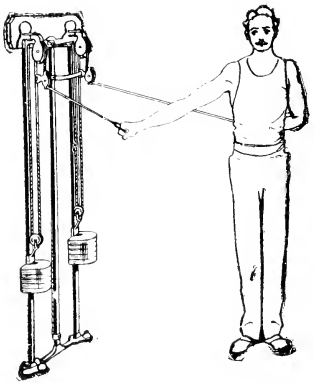
Back to Machine.

Both hands brought up shoulder high, 8 counts.

This movement exercises the full chest muscles, front upper arm, forearm and part of front shoulder.

1. Pectoralis, major (part.) 2. Deltoid (part.) 3. Biceps. 4. Brachialis Anticus. 5. Flexor Carpi Radialis. 6. Flexor Carpi Ulnaris.

SERIES NO. 1—DOUBLE ARM WORK—(Continued).



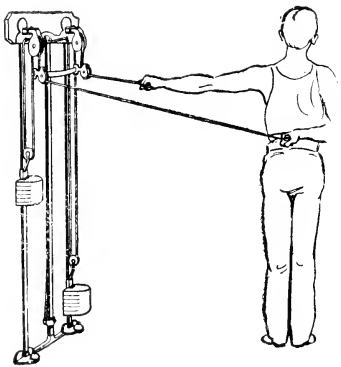
Right Side to Machine.

From this back position turn right side to machine. Flex left back of body, palm up, and right hand down across front of body, 8 counts.

These movements exercise the side chest and upper side back waist, and upper front arm on right side. The shoulder, upper side back waist and back upper arm on left side.

Right arm and side; 1. Pectoralis major. 2. Pectoralis minor. 3. Latissimus Dorsi.

Left arm and side; 1. Deltoid. 2. Triceps. 3. Left side Abdominal Muscles.



Same, left side to machine and right back of body.

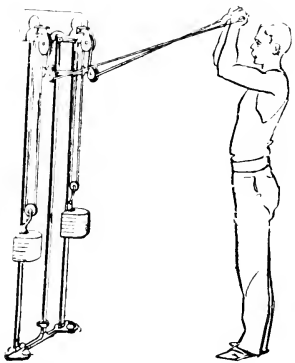
These movements exercise the side chest and upper side back waist on left side. The shoulder, upper side back waist and back upper arm on right side.

Left arm and side: 1. Pectoralis major. 2. Pectoralis minor. 3. Latissimus Dorsi.

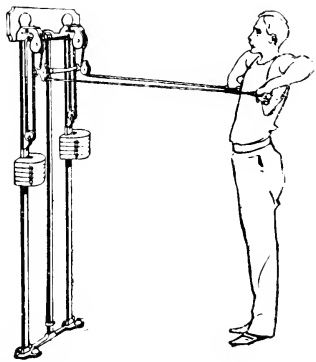
Right arm and side: 1. Deltoid. 2. Triceps. 3. Right Side Abdominal Muscles.

ARTICLE III.

SERIES NO. 2—DOUBLE ARM WORK.



1.



2.

SECOND SERIES.

Face Machine.

(1). Arms flexed, elbows up, palms up, 8 counts.

(2). Arms flexed elbows shoulder high, palms in, 8 counts.

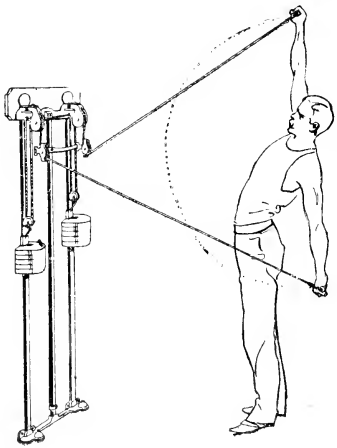
1. This movement exercises the front upper arm and forearm

2. This movement exercises front upper arm and shoulders

1. 1. Biceps. 2. Brachialis Anticus. 3. Flexor Carpi Radialis

2. 1. Trapezius. 2. Rhomboideus. 3 Teres major. 4. Teres minor and 5. Biceps.

Series No. 2—DOUBLE ARM WORK—(Continued).



Face Machine.

Right hand high, left low, arms rigid, 8 counts.

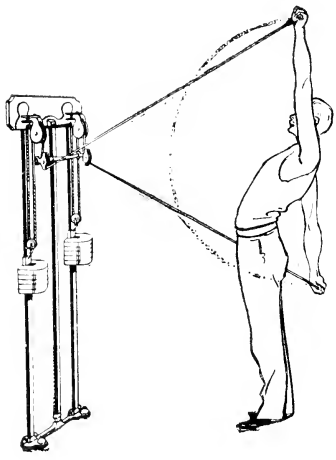
This movement exercises the back upper arm, full shoulder and part of chest on right side; lower side shoulder and back upper arm left side.

Right side and arm.

1 Deltoid (part). 2. Pectoralis major (part). 3. Triceps. 4. Anconeus. 5. Extensior Carpi Radialis (Brevior). 6. Extensior Longior.

Left side and arm.

1 Deltoid (part). 2. Teres major. 3. Teres minor. 4. Latisimus Dorsi. 5. Triceps. 6. Anconeus Flexior. 7. Carpi Radialis.



Face Machine.

1. Left hand high, right hand low, arms rigid, 8 counts.

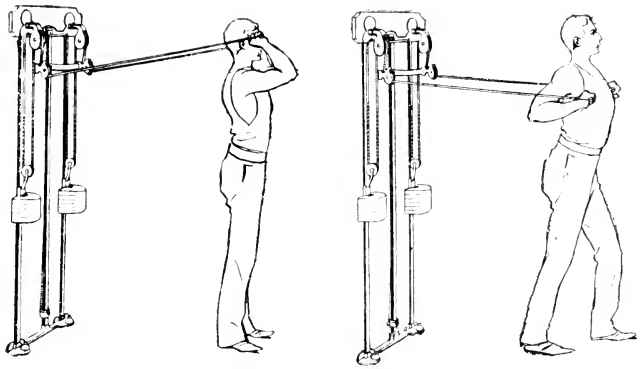
2. Alternate with half circle front.

(1). This movement exercises the back upper arm full shoulder chest (part) on left side; lower side shoulder back upper arm on right side.

(1). Left side and arm. 1. Deltoid (part). 2. Pectoralis major (part). 3. Triceps. 4. Anconeus. 5. Extensior Carpi Radialis (Brevior). 6. Extensior Longior.

(2). *To Alternate* these movements with bending the body sideways Transversalis, Internal and External oblique and Rectus Abdominus (part).

Series No. 2—DOUBLE ARM WORK—(Continued)



1. 2.

Back to Machine.

(1). Arms flexed, palms down, cords over shoulder, 8 counts.

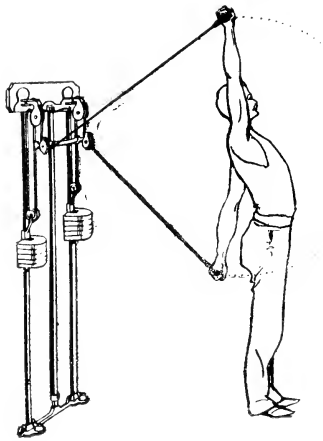
(2). Arms flexed, palms in, cords under arms, 8 counts.

These movements exercise the chest back of upper arm and back of forearm.

(1). 1. Triceps. 2. Anconeus. 3. Extensior Longior. 4. Extensor Carpi Radialis (Brevior).

(2) 1. Deltoid (part). 2. Triceps. 3. Anconeus. 4. Pectoralis major (part).

DOUBLE ARM WORK—(Continued).



Back to Machine.

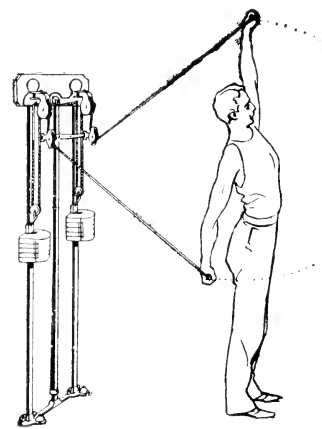
Right arm up, left down, arm rigid, hands brought together front.

These movements exercise the side chest and side of abdomen on right side.

The front upper arm, front forearm and side chest on left side.

Right arm and body: 1. Pectoralis major. 2. Pectoralis minor. 3. Rectus Abdominus (part). 4. External and Internal oblique (part).

Left arm and side: 1. Pectoralis major. 2. Pectoralis minor. 3. Biceps. 4. Flexor Carpi Radialis.



Left arm up, right down, arms rigid, hands brought together front.

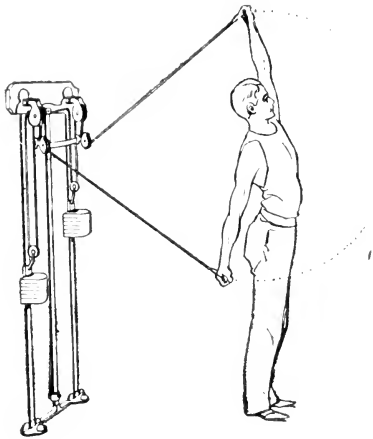
These movements exercise the side chest and side of abdomen on left side.

The front upper arm, front forearm, side chest on right side.

Left side and body: 1. Pectoralis major. 2. Pectoralis minor. 3. Rectus Abdominus (part). 4. External and Internal oblique (part).

Right side and arm: 1. Pictoralis major. 2. Pectoralis minor. 3. Biceps. 4. Flexor Carpi Radialis.

SERIES NO. 2—DOUBLE ARM WORK—(Continued).

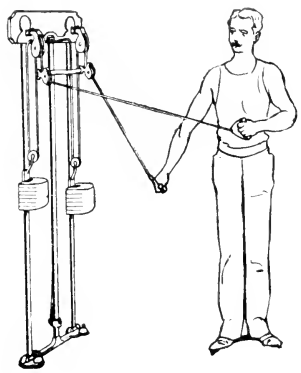


Back to Machine.

To Alternate these movements with bending the body sideways, making half circle front.

This movement exercises the chest, abdomen and waist (part).

1. Rectus Abdominus (part). 2. External oblique. 3. Internal oblique. 4. Transversalis (part). 5. Pectoralis major. 6. Biceps. 7. Flexor Carpi Radialis. 8. Pectoralis minor.



Both cords over right side, back straight to machine, right foot back.

Same on left side. 8 counts.

This movement exercises the side chest, front upper arm and front forearm on right side.

The shoulder, back upper arm and back upper waist on left side.

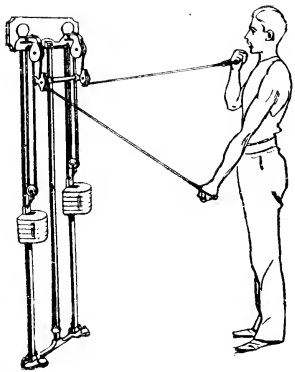
Right arm and side: 1. Pectoralis major. 2. Biceps. 3. Latissimus Dorsi. 4. Flexor Carpi Radialis.

Left arm and side: 1. Deltoid. 2. Trapezius. 3. Triceps. 4. Rhomboideus major, 5. Rhomboideus minor.

Same muscles used in reverse position.

ARTICLE IV.

SERIES NO. 3—DOUBLE ARM WORK—(Continued).



THIRD SERIES.

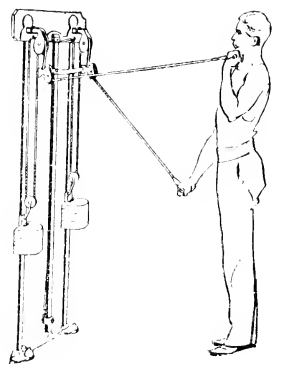
Face Machine.

Right Arm flexed, left arm rigid down, 8 counts,

These movements exercise the upper arm on right side, the back upper arm, part of upper shoulders, lower side shoulder and front forearm on left side.

Right Arm: 1. Biceps. 2. Brachialis Anticus. 3. Latissimus Dorsi.

Left arm and side: 1. Deltoid (part). 2. Teres major. 3. Teres minor. 4. Latissimus Dorsi. 5. Triceps. 6. Anconeus. 7. Flexor Carpi Radialis. 8. Flexor Carpi Ulnaris.



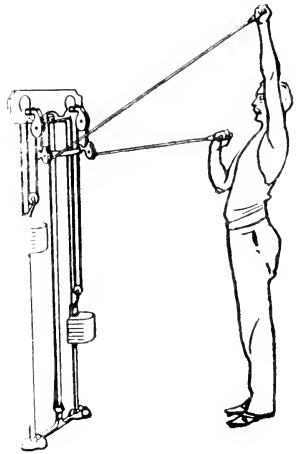
Reverse arm work, right arm down, left flexed, 8 counts.

These movements exercise upper arm on left side, the back upper arm, lower side shoulder, part of upper shoulder and front forearm on right side.

Left arm: 1. Biceps. 2. Brachialis Anticus. 3. Latissimus Dorsi.

Right arm and side: 1. Deltoid (part). 2. Teres major. 3. Teres minor. 4. Latissimus Dorsi. 5. Triceps. 6. Anconeus. 7. Flexor Carpi Radialis. 8. Flexor Carpi Ulnaris.

SERIES NO. 3—DOUBLE ARM WORK—(Continued).

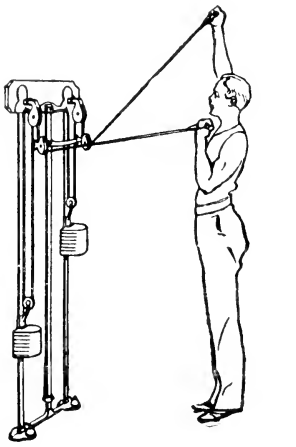


Left hand up and right flexed, 8 counts.

These movements exercise the upper arm on right side, the front shoulder (part), the back upper shoulder, full back upper arm and back forearm on left side and side chest (part).

Right arm: 1. Biceps. 2. Brachialis Anticus. 3. Latissimus Dorsi.

Left arm and shoulder: 1. Trapezius (full). 2. Deltoid (part). 3. Triceps. 4. Rhomboideus major. 5. Rhomboideus Minor. 6. Extensior Longior.



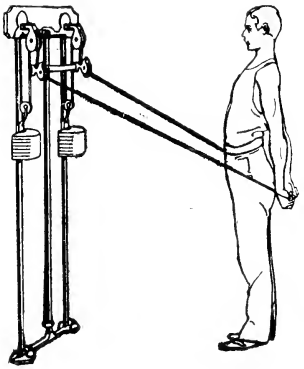
Reverse above movement, right up and left arm flexed, 8 counts.

These movements exercise upper arm on left side, the full shoulder, front shoulder (part) back, upper arm and back forearm on left side and side chest (part).

Left arm: 1. Biceps. 2. Brachialis Anticus. 3. Latissimus Dorsi.

Right arm and shoulder: 1. Trapezius (full). 2. Deltoid (part). 3. Triceps. 4. Rhomboideus major. 5. Rhomboideus minor. 6. Extensior Longior.

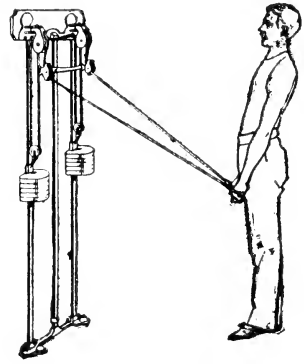
SERIES No. 3—DOUBLE ARM WORK—(Continued).



Both hands down, arms rigid on 1.

This movement exercises the back upper arm, front shoulder, back upper side and back shoulders. (part).

Right and left arm and shoulders. 1. Latissimus Dorsi. 2. Trapezius (part). 3. Rhomboideus major. 4. Rhomboideus minor. 5. Deltoid. 6. Teres minor. 7. Teres major. 8. Triceps. 9. Anconeus.

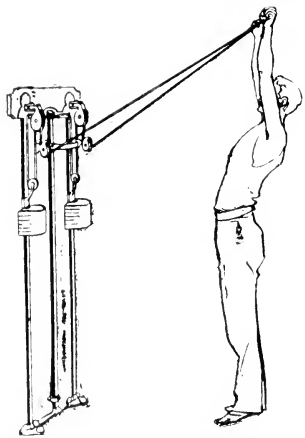


Both hands down, arms Flexed on 2.

This movement exercises the front upper arm and front forearm. Also upper back, side waist.

Right and left arms: 1. Biceps. 2. Brachialis Anticus. 3. Latissimus Dorsi. 4. Flexor Carpi Radialis. 5. Flexor Carpi Ulnaris.

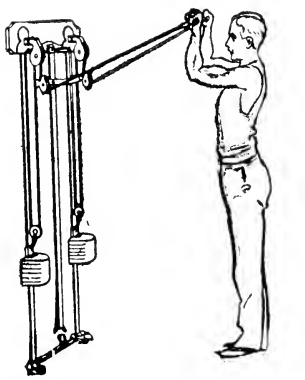
Series No. 3—DOUBLE ARM WORK—(Continued).



Both hands up, arms rigid on 1.

This movement exercises the full upper back, back forearms and part of front shoulder.

Both arms and upper back: 1. Trapezius. 2. Deltoid (part). 3. Rhomboideus major. 4. Rhomboideus minor, 5. Triceps. 6. Teres minor. 7. Teres major. 8. Anconeus. 9. Extensior Longior. 10. Extensior Carpi Radialis.



Both hands up, arms Flexed on 2,

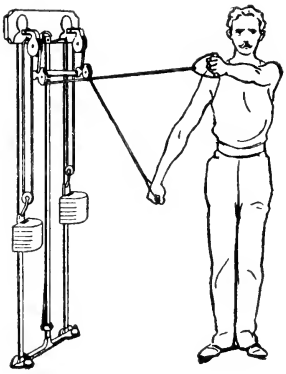
Combination of flexes and arms rigid (down).

This movement exercises the front upper arm and front forearm, also upper back side waist.

Right and left arms and body: 1. Biceps. 2. Branchialis Anticus. 3. Latissimus Dorsi. 4. Flexor Carpi Radialis. 5. Flexor Carpi Ulnaris.

Series No. 3—DOUBLE ARM WORK—(Continued).

Right Side to Machine.

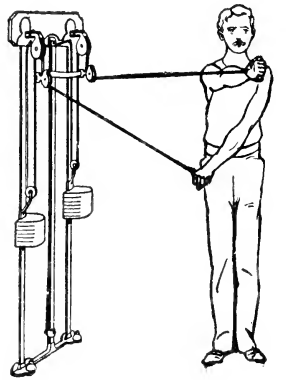


Right hand down to side, left out front shoulder high, 8 counts.

These movements exercise the side chest, front upper arm, front forearm and upper side back, on right side. The shoulder, upper side back and front shoulder and back, upper arm on left side.

Right arm and side: 1. Pectoralis major. 2. Latissimus Dorsi. 3. Biceps, 4. Brachialis Anticus. 5. Flexor Carpi Radialis. 6. Flexor Carpi Ulnaris.

Left arm and shoulder: 1. Deltoid. 2. Teres minor. 3. Teres major. 4. Trapezius. 5. Rhomboideus major. 6. Rhomboideus minor. 7. Latissimus. 8. Triceps. 9. Extensior Carpi Radialis. 10. Extensior Longior. 11. Longissimus Dorsi.



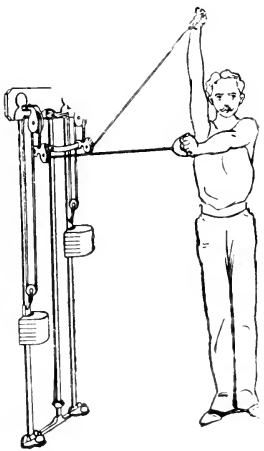
Left hand down across body, right hand across front shoulder high, 8 counts.

These movements exercise the side chest, front upper arm, front forearm and side of body (part) on right side and arm. The shoulder, back upper arm and upper side back, on left side.

Right arm and side: 1. Pectoralis major. 2. Latissimus Dorsi. 3. Deltoid. 4. Serratus Magnus. 5. Biceps. 6. Brachialis Anticus. 7. Flexor Carpi Radialis. 8. Flexor Carpi Ulnaris.

Lelf arm and shoulder: 1. Deltoid. 2. Trapezius. 3. Latissimus Dorsi. 4. Triceps. 5. Rhomboideus major. 6. Rhomboideus minor. 7. Teres minor. 8. Teres major.

SERIES NO. 3—DOUBLE ARM WORK—(Continued).



Reverse these Movements.

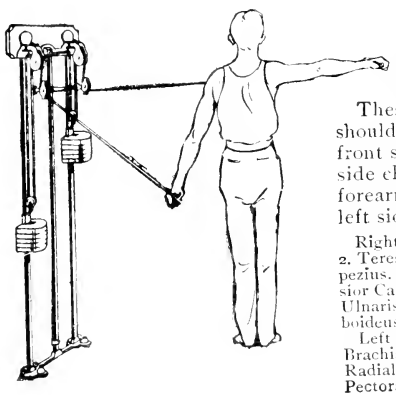
Right hand up, left shoulder high, front, 8 counts.

These movements exercise the front upper arm, front forearm, part of shoulder, and side muscles on right side and arm. The upper back arm, shoulder and back upper waist on left side and arm.

Right arm and side: 1. Trapezius. 2. Serratus Magnus. 3. Supra Spinatus. 4. Infra Spinatus. 5. Brachialis Anticus. 6. Biceps. 7. Flexor Carpi Radialis. 8. Flexor Carpi Ulnaris.

Left arm and side: 1. Deltoid. 2. Teres minor. 3. Teres major. 4. Trapezius. 5. Rhomboideus major. 6. Rhomboideus minor. 7. Latissimus Dorsi. 8. Longissimus Dorsi. 9. Triceps. 10. Extensior Carpi Radialis. 11. Extensior Longior. 12. Serratus Superior.

Same Movements with left side to Machine.



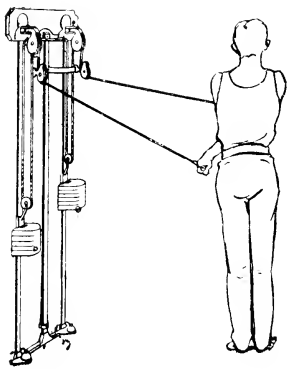
Left hand down to side, right out to front, shoulder high, 8 counts.

These movements exercise the shoulder, upper side back, and front shoulder on right side. The side chest, front upper arm, front forearm and upper side back on left side.

Right arm and shoulder: 1. Deltoid. 2. Teres minor. 3. Teres major. 4. Trapezius. 5. Latissimus Dorsi. 6. Extensior Carpi Radialis. 7. Extensior Carpi Ulnaris. 8. Longissimus Dorsi. 9. Rhomboideus major and minor. 10. Triceps.

Left arm and side: 1. Biceps. 2. Brachialis Anticus. 3. Flexor Carpi Radialis. 4. Flexor Carpi Ulnaris. 5. Pectoralis major. 6. Latissimus Dorsi.

SERIES NO. 3—DOUBLE ARM WORK—(Continued).



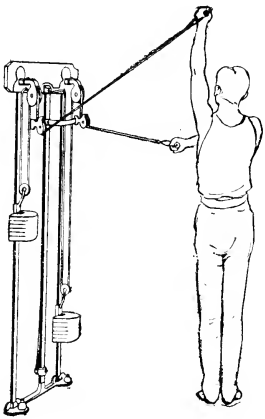
Right hand down across body
Left across front, shoulder high,
8 counts.

These movements exercise the shoulder, back upper arm and upper side back on right side. The side chest, front upper arm front forearm, side of body (part) on left side.

Right arm and shoulder: 1. Deltoid. 2. Trapezius. 3. Latissimus Dorsi. 4. Triceps. 5. Rhomboideus major. 6. Rhomboideus minor. 7. Teres minor. 8. Teres major.

Left arm and side: 1. Pectoralis major. 2. Latissimus Dorsi. 3. Deltoid. 4. Serratus Magnus. 5. Biceps. 6. Brachialis Anticus. 7. Flexor Carpi Radialis. 8. Flexor Carpi Ulnaris.

Reverse these Movements.



Left hand up, right hand across. shoulder high, 8 counts.

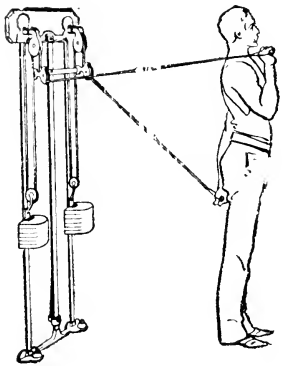
These movements exercise the front upper arm, front forearm, part of shoulder and side muscles on left side and arm. The back upper arm, shoulder and back upper waist on right arm and side.

Left arm and side: 1. Trapezius. 2. Serratus Magnus. 3. Biceps. 4. Supra Spinatus. 5. Infra Spinatus. 6. Brachialis Anticus. 7. Flexor Carpi Radialis. 8. Flexor Carpi Ulnaris.

Right arm and side: 1. Deltoid. 2. Teres minor. 3. Teres major. 4. Latissimus Dorsi. 5. Longissimus Dorsi. 6. Trapezius. 7. Rhomboideus major. 8. Rhomboideus minor. 9. Triceps. 10. Extensior Carpi Radialis. 11. Extensior Carpi Ulnaris.

SERIES I.—3—DOUBLE ARM WORK—(Continued).

Back to Machine.

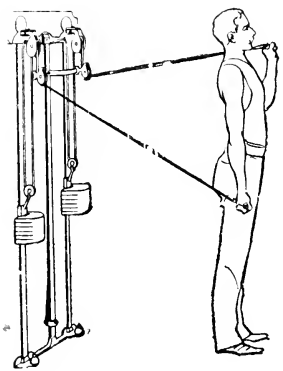


Right arm flexed, cord over shoulder, left down, rigid at side.

This movement exercises the back upper arm and back forearm on right side. The chest, front upper arm and front forearm on left side.

Right arm: 1. Triceps. 2. Anconeus. 3. Extensor Carpi Radialis. 4. Extensor Carpi Ulnaris.

Left arm and side: 1. Deltoid. 2. Pectoralis major. 3. Biceps. 4. Brachialis Anticus. 5. Flexor Carpi Radialis. 6. Flexor Carpi Ulnaris.



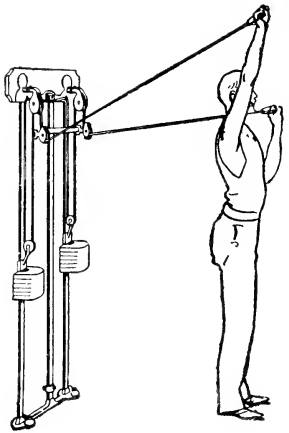
Reverse side, 8 counts.

This movement exercises the chest, front upper arm and front forearm on right side. The back upper arm and back forearm on left side.

Right arm and side: 1. Deltoid. 2. Pectoralis major. 3. Biceps. 4. Brachialis Anticus. 5. Flexor Carpi Radialis. 6. Flexor Carpi Ulnaris.

Left arm: 1. Triceps. 2. Anconeus. 3. Extensor Carpi Radialis. 4. Extensor Carpi Ulnaris.

Series No. 3—DOUBLE ARM WORK—(Continued).

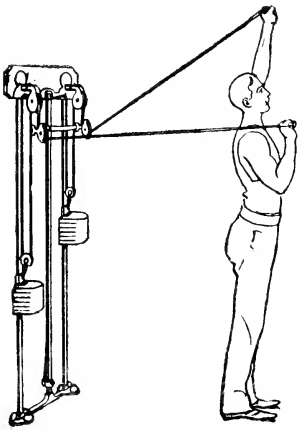


Right arm up, left flexed, cord over shoulder.

This movement exercises the chest, front upper arm, front forearm, part of side and part of abdomen on right side. The back upper arm and back forearm on left side.

Right arm and side: 1. Pectoralis major. 2. Latissimus Dorsi. 3. Biceps. 4. Brachialis Anticus. 5. Rectus Abdominus (part). 6. Oblique Internus and Externus.

Left arm: 1. Triceps. 2. Anconeus. 3. Extensor Carpi Radialis. 4. Extensor Carpi Ulnaris.



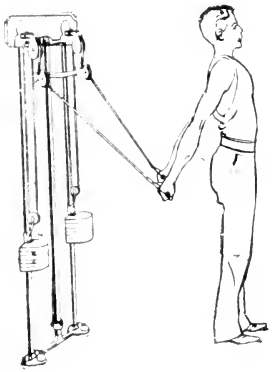
Reverse side, 8 counts.

This movement exercises the back upper arm and back forearm on right side. The abdomen (part), the side (part), the front forearm and chest on left side.

Right arm: 1. Triceps. 2. Anconeus. 3. Extensor Carpi Radialis. 4. Extensor Carpi Ulnaris.

Left arm and side: 1. Pectoralis major. 2. Latissimus Dorsi. 3. Biceps. 4. Brachialis Anticus. 5. Rectus Abdominus (part). 6. Oblique Internus and Oblique Externus.

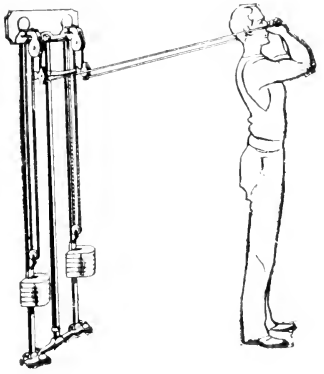
SERIES NO. 3—DOUBLE ARM WORK—(Continued).



Both down on 1.

This movement exercises the chest, front upper arm, front forearm and part of front shoulder.

1. Pectoralis major and minor.
2. Brachialis Anticus.
3. Biceps.
4. Flexor Carpi Radialis.
5. Flexor Carpi Ulnaris.
6. Flexor Digitorum.
7. Deltoid (part).

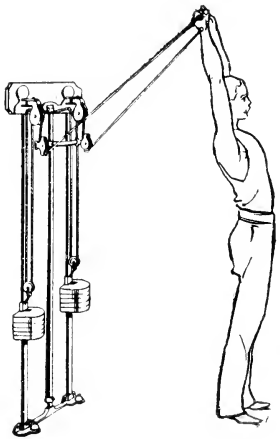


Flex on 2, turn wrist on 3.

This movement exercises the back upper arms and back forearms.

1. Triceps,
2. Anconeus.
3. Extensior Carpi Radialis.
4. Extensior Carpi Ulnaris.

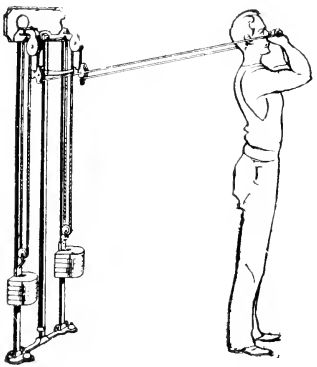
Series No. 3—DOUBLE ARM WORK—(Continued).



Both up on 1.

This movement exercises the chest, the abdomen (part), side of abdomen, front upper arm, front forearm.

1. Rectus abdominus (part).
2. Pectoralis major and minor.
3. Latissimus Dorsi.
4. Biceps.
5. Internal and External Oblique
6. Flexor Carpi Radialis.
7. Flexor Carpi Ulnaris.



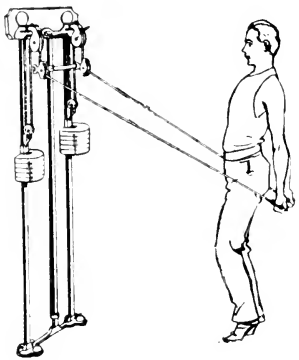
Flex on 2, turn wrist on 3.

This movement exercises the back upper arms and back fore arms.

1. Triceps.
2. Anconeus.
3. Extensior Carpi Radialis.
4. Extensior Carpi Ulnaris.

ARTICLE V.

SERIES No. 4—DOUBLE ARM WORK—(Continued).

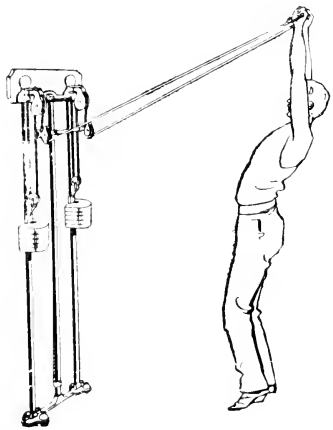


Facing Machine. Leg and Thigh Work.

Hands down, and dip by flexing thighs, and raise on toes.

This movement exercises the back upper arm, upper back (part), upper back waist, front upper thigh and calf of leg.

1. Latissimus Dorsi. 2. Trapezius (part). 3. Rhomboideus major and minor. 4. Deltoid. 5. Teres minor. 6. Teres major. 7. Triceps. 8. Anconeus. 9. Rectus Femoris. 10. Psoas Magnus. 11. Vastus Internus. 12. Vastus Externus. 13. Psoas Parvus. 14. Gastrocnemius. 15. Soleus.

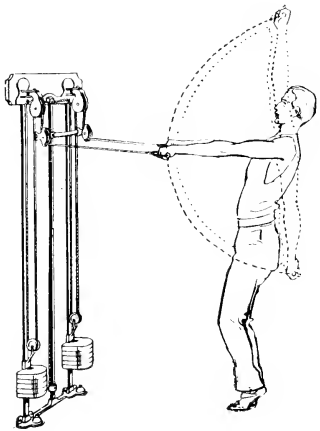


Hands up and dip by flexing thighs, and raise on toes.

This movement exercises the full upper back, back of forearm, front of thigh and calf of leg and back upper arm.

1. Trapezius (full). 2. Triceps 3. Deltoid. 4. Rhomboideus major and minor. 5. Anconeus. 6 Extensor Carpi Radialis. 7. Extensor Longior. 8. Vastus Externus. 9. Vastus Internus. 10. Psoas Magnus. 11. Psoas Parvus 12. Gastrocnemius. 13. Soleus 14. Rectus Femoris

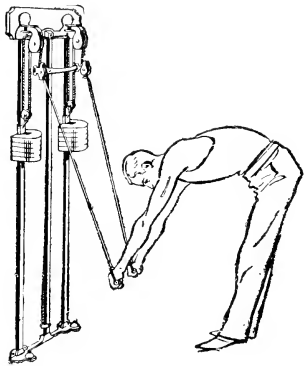
Series No. 4—DOUBLE ARM WORK—(Continued).



Combination up and down by flexing thighs and raise on toes.

This combination exercises the back upper arm, upper back, upper back waist, back forearm, front of thigh and calf of leg.

1. Latissimus Dorsi. 2. Trapezius. 3. Rhomboideus minor and major. 4. Deltoid. 5. Teres minor. 6. Teres major. 7. Triceps. 8. Anconeus. 9. Extensior Carpi Radialis. 10. Extensior Longior. 11. Vastus Internus. 12. Vastus Externus. 13. Psoas Magnus. 14. Psoas Parvus. 15. Gastrocnemius. 16. Soleus. 17. Rectus Femoris.

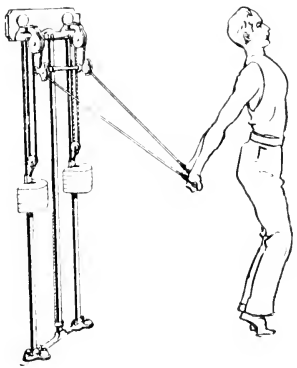


Bend body forward, heels together, 8 counts.

This movement exercises the abdomen, chest and part of sides

1. Rectus Abdominus.
2. External oblique.
3. Internal oblique.
4. Psoas Magnus.
5. Psoas Parvus.
6. Serratus Magnus.
7. Pectoralis major.
8. Pectoralis minor.

SERIES No. 4—DOUBLE ARM WORK—(Continued),

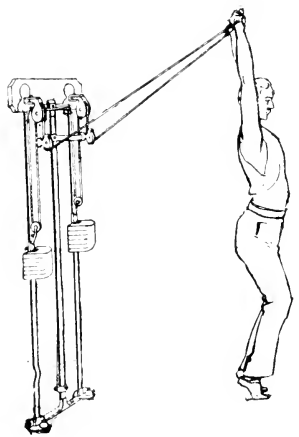


Back to Machine. Leg and Thigh Work.

Hands down, and dip by flexing thighs, and raise on toes.

This movement exercises the chest, part of front shoulder, front upper arm and front forearm, front upper thigh and calf of leg.

1. Deltoid. 2. Pectoralis major. 3. Biceps. 4. Brachialis Anticus. 5. Flexor Carpi Radialis. 6. Flexor Carpi Ulnaris. 7. Vastus Internus. 8. Vastus Externus. 9. Psoas Magnus. 10. Psoas Parvus. 11. Rectus femoris. 12. Soleus. 13. Gastrocnemius.

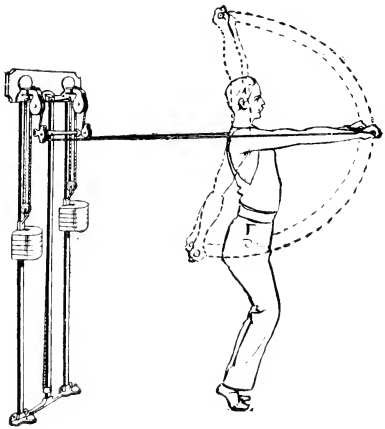


Hands up, and dip by flexing thighs, and raise on toes.

This movement exercises the abdomen muscles (part), side of abdomen, chest, front forearm and front upper arm, front upper thigh, calf of leg.

1. Pectoralis major. 2. Latissimus Dorsi. 3. Biceps. 4. Brachialis Anticus. 5. Rectus Abdominus (part). 6. Internal oblique. 7. External oblique. 8. Flexor Carpi Radialis. 9. Flexor Carpi Ulnaris. 10. Vastus Internus. 11. Vastus Externus. 12. Rectus femoris. 13. Gastrocnemius. 14. Soleus.

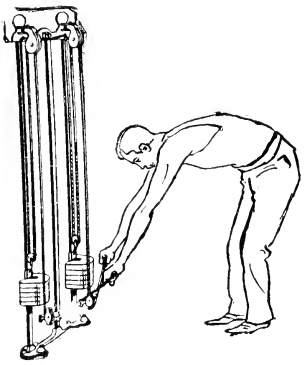
SERIES No. 4.—DOUBLE ARM WORK—(Continued).



Combination up and down.

This combination exercises the abdomen (part), chest, front upper arm, front forearm, sides of abdomen and part of front shoulder, front upper thigh and calf of leg.

1. Pectoralis major. 2. Deltoid. 3. Biceps. 4. Brachialis Anticus. 5. Flexor Carpi Radialis. 6. Flexor Carpi Ulnaris. 7. Rectus Abdominus (part). 8. Latissimus Dorsi. 9. Internal oblique. 10. External oblique. 11. Rectus Femoris. 12. Vastus Internus and Externus. 13. Gastrocnemius. 14. Soleus.

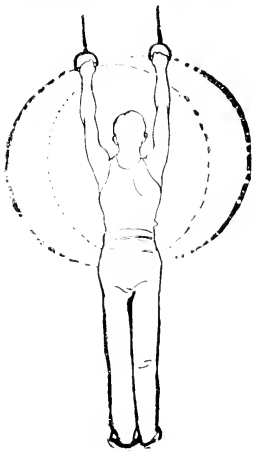


Bend body forward and flex thighs. Pull from floor.

This movement exercises the lower back and thighs and upper back (part).

1. Trapezius. 2. Rhomboideus major. 3. Latissimus Dorsi. 4. Longissimus Dorsi. 5. Spinalis Dorsi. 6. Multifidius Spinae. 7. Glutens Maximus. 8. Rectus Femoris. 9. Vastus Internus. 10. Vastus Externus. 11. Glutens Medius. 12. Intertrans Versalis. 13. Biceps Femoris. 14. Semitendinosus. 15 Semimembranosus.

SERIES No. 5—DOUBLE ARM WORK—(Continued).



FIFTH SERIES.

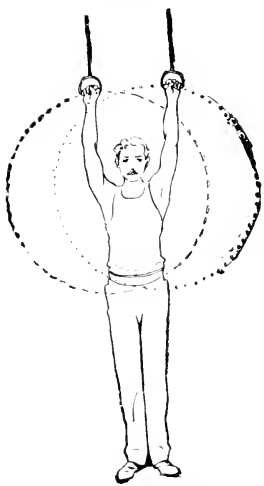
INTERCOSTALS.

Face Machine.

Bring both hands down front, arms rigid, (On intercostal machine.)

This movement exercises the thorax muscles, side and abdomen muscles.

1. Pectoralis major. 2. Pectoralis minor. 3. Serratus Magnus. 4. Deltoid. 5. Teres minor. 6. Teres major, 7. Triceps (part). 8. Internal Oblique. 9. External Oblique. 10. Psoas Magnus. 11. Rectus Abdominus. 12. Flexor Carpi Radialis. 13 Flexor Carpi Ulnaris. 14. Flexor Digitorium.



Back to Machine

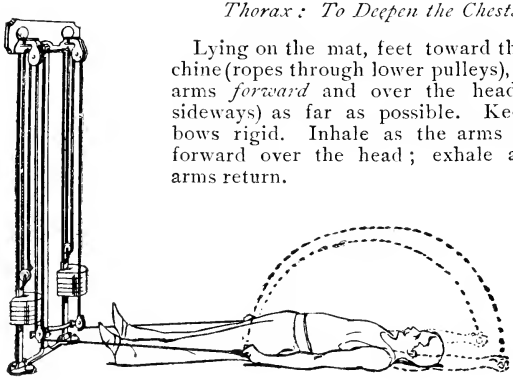
Bring both hands down *sideways*, arms rigid, inhale as the arms return overhead.

This movement exercises the thorax muscles, full chest, sides, upper back and part of abdomen.

1. Intercostal. 2. Levatores Costarum. 3. Diaphragm. 4. Pectoralis major (part). 5. Latissimus Dorsi. 6. Serratus Magnus. 7. Mangularis Sterni. 8. Internal oblique. 9. External oblique. 10. Transversalis Abdominus. 11. Rectus Abominus. 12. Longissimus Dorsi. 13. Flexor Carpi Radialis and Ulnaris.

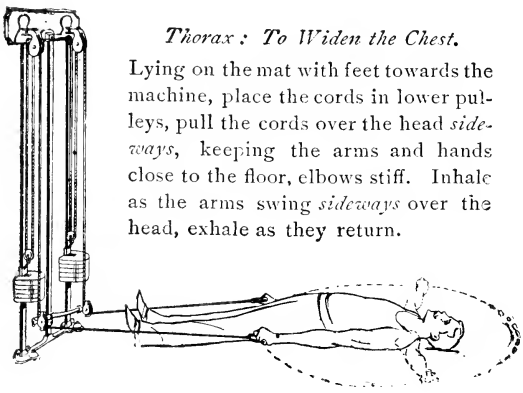
NOTE.—These exercises may be taken face or back to machine and bring arms down front of body or sideways keeping arms rigid inhaling as arms return overhead

Series No. 5—DOUBLE ARM WORK—(Continued).



Thorax: To Deepen the Chest.

Lying on the mat, feet toward the machine (ropes through lower pulleys), swing arms *forward* and over the head (not sideways) as far as possible. Keep elbows rigid. Inhale as the arms swing forward over the head; exhale as the arms return.



Thorax: To Widen the Chest.

Lying on the mat with feet towards the machine, place the cords in lower pulleys, pull the cords over the head *sideways*, keeping the arms and hands close to the floor, elbows stiff. Inhale as the arms swing *sideways* over the head, exhale as they return.

Pulley Weights—Explanation of Muscles.

The work done by the principal muscles used in the First and Second Series (Single), First, Second, Third, Fourth and Fifth Series (Double):

1. Pectoralis major and minor—Draws the arm down and front.
2. Deltoid—Raises the arm shoulder high from side.
3. Trapezius—Help draw the arm up over head from shoulder high.
4. Latissimus Dorsi—Draws the arm down and back of body.
5. Supra Spinatus—Assist Deltoid in raising arm.
6. Infra Spinatus—Assists in help holding arm in above position.
7. Serratus Magnus—To raise point of shoulder and elevate ribs and help draw arm over head from shoulder high.
8. Rhomboideus major and minor—Work in connection with the Trapezius to draw scapula backwards.
9. Biceps—Flexor of forearm.
10. Brachialis Anticus—Flexor of forearm (in connection with Biceps).
11. Triceps—Extensor of forearm.
12. Teres major—Assists Latissimus Dorsi in bringing arm down to side.
13. Teres minor—Assists Infra Spinatus in help holding arm up shoulder high.
14. Flexor Carpi Radialis. } To flex wrist.
15. Flexor Carpi Ulnaris. }
16. Extensor Carpi Radialis. } To extend wrist.
17. Extensor Carpi Ulnaris. }
18. Extensor Digitorum—To flex fingers.
19. Transversalis—Internal and External Oblique are used to flex thorax and used in waist work.
20. Intercostals—(Internal and External) are used in elevating and depressing the ribs in breathing.
21. Serratus Magnus—To raise point of shoulder and elevate the ribs.
22. Rectus Abdominus—To flex thorax to pelvis.
23. Rectus Femoris—To extend leg and flex thighs and pelvis.
24. Vastus Externus and Internus—To extend leg.
25. Psoas Magnus—To flex and rotate femur outward.
26. Gastrocnemius—To extend the foot.
27. Soleus—To extend the foot.
28. Anconeus—To extend the forearm.
29. Pronator Teres—To pronate the hand.
30. Supinator Longus—To superinate the hand and flex arms.
31. Longissinus Dorsi. } Work in connection in straightening bent and keeping spine in erect position, and also
32. Multifidus Spinæ. } bending body backward.
33. Biceps Femoris. }
34. Semitendinosus. } To flex leg, extend thigh and raise body erect.
35. Semimembranosus. }

Spalding Trade-Mark Indian Clubs

STAINED FINISH

No. A

No. AA

Good material, and far superior in shape and finish to the best clubs of other makes. Each pair wrapped in paper bag.

Model BS—Weights specified are for each club.

½ lb. . .	Pair, $ .85	1½ lb. .	Pair, $1.30
¾ lb. . .	" 1.05	2 lb. .	" 1.45
1 lb. . .	" 1.15	3 lb. .	" 2.00

Model BS

Spalding Exhibition Clubs

Handsomely finished in ebonite; for exhibition and stage purposes. Clubs are hollow, with large body, and although extremely light, represent a club weighing three pounds or more.

No. **A.** Ebonite finish. . . . . Pair, **$5.00**
No. **AA.** With silvered bands. . . " **7.00**

Indian Club and Dumb Bell Hangers

Made of Iron and Nicely Japanned

No. **1.** . . . . . Pair, 25c.

Spalding Ash Bar Bells

No. **2.** Selected material, highly polished, 5 feet long. . . . . Each, **$1.00**

Calisthenic Wand

No. **4.** 4½ feet long, 1 inch diameter. Black finish . Each, **25c.** ★ *$2.70 Doz.*

School Wand

No. **3.** 3½ feet long. Straight grained maple, black finish. Each, **20c.** ★ *$2.16 Doz.*

The prices printed in italics opposite items marked with ★ will be quoted only on orders for one-half dozen or more at one time. Quantity prices NOT allowed on items NOT marked with ★

Spalding Spring Grip Dumb Bells

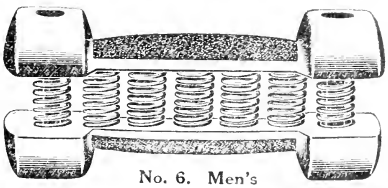
Manufactured by A. G. Spalding & Bros.

These dumb bells are made in two halves connected by steel springs—as specified in the Sandow patent, which expired August 8, 1916—the effort necessary in gripping, making it necessary to continually devote the whole mind to each movement. This concentration of will power on each muscle involved is what is responsible for the great results obtained through properly exercising with them.

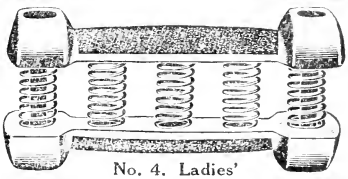
Black Enameled Bells, Springs Nickel-plated and Polished

No. **6.**	Men's.	Seven steel springs. .	Pair, **$3.00**
No. **5.**	Men's.	Five steel springs. .	" **3.00**
No. **4.**	Ladies'.	Five steel springs. .	" **2.50**
No. **2.**	Boys'.	Four steel springs. .	" **2.00**

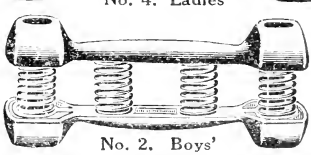
Spalding Patent Spring Grip Dumb Bells are used by all the greatest athletes in their training.



No. 6. Men's



No. 4. Ladies'



No. 2. Boys'

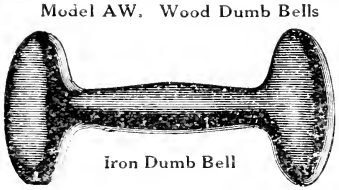
Spalding Trade-Mark Wood Dumb Bells

Model AW. Stained Finish

Good material and superior in shape and finish to best wood dumb bells of other makes. Each pair wrapped in paper bag. Weights specified are for each bell.

½ lb. . .	Pair, **$ .85**	1¼ lb. .	Pair, **$1.30**
¾ lb. . .	" **1.05**	2 lb. . . .	" **1.45**
1 lb. . .	" **1.15**		

Model AW. Wood Dumb Bells



Iron Dumb Bell

Spalding Iron Dumb Bells

Made on approved models, nicely balanced and finished in black enamel.

Sizes, 1 to 25 lbs. . . . . **13c.** lb. ★ *13c. lb.*

50 lbs, ... **13c.** lb, ★ *13c. lb.*

Weights between 25 and 50 lbs. Each, **17c.** lb. ★ *16c. lb.*

Weights between 50 and 100 lbs. Each, **20c.** lb. ★ *18c. lb.*

Bar Bells, weight 25 lbs. or more for complete Bar Bell, supplied regularly with steel handles, length 3 feet between bells. **17c.** lb. ★ *16c. lb.*

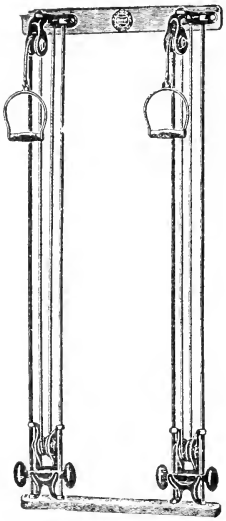
Bar Bells, weight 25 lbs. or more for complete Bar Bell with steel handles, either shorter or longer than regular length, as noted above. **25c.** lb. ★ *23c. lb.*

Prices for Bar Bells, weighing other than above, quoted on application

Quantity prices allowed on 25 lbs. or more of iron dumb bells or 100 lbs. or more of bar bells. The prices printed in italics opposite items marked with ★ will be quoted only on orders for one dozen pairs or more on sizes up to one pound, and on one-half dozen pairs or more on sizes over one pound in weight. Quantity prices will NOT be allowed on items NOT marked with ★

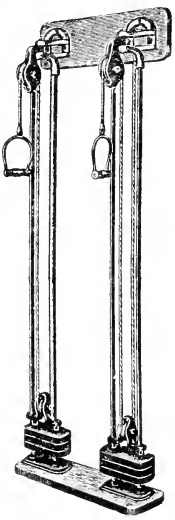
ACCEPT NO SUBSTITUTE THE SPALDING TRADE-MARK GUARANTEES QUALITY

SPALDING CHEST WEIGHT MACHINES



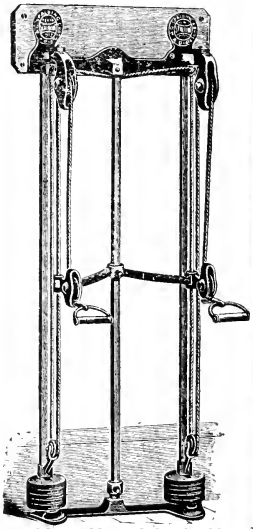
Spalding Chest Weight No. 2

No 2. A good machine for home use; noiseless and durable. Well made and easy running. Rods are ⅜-inch coppered spring steel. Weights are 5-lb. iron dumb bells, one to each carriage, and may be removed and used as dumb bells. Wall and floor boards are hard wood, nicely finished and stained. All castings heavily japanned. Every part of machine guaranteed free of defect.



Spalding Chest Weight No. 12

No. 12. This machine, especially designed for home exercise, will be found high grade in every particular. Cast iron parts are all nicely japanned. The wheels are iron, turned true on centers, and have hardened steel cone point bearings. The guide rods are spring steel, copper-plated. The weight carriage has removable felt bushings, noiseless and durable. Each handle is equipped with 10 pounds of weights.

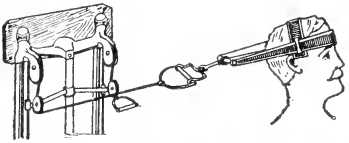


Spalding Chest Weight No. 5

No. 5. Because of its adjustment feature, which permits of all lower, as well as direct chest movements, this machine really combines two machines in one, and is particularly suitable where space is a consideration. The various changes are made by raising or lowering the center arm, requiring but a few seconds. Japan finish. Each machine is equipped with 16 pounds of weights.
Extra weights for above, 1¼ lbs..

Spalding Chest and Neck Attachment

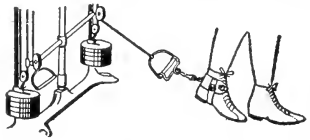
For business men. Overcomes tendency to forward head, due to continuous work at desk. For women, will help develop a nicely rounded neck.



No. 3. Heavy cowhide. Ready for use by simply snapping to one of the handles or both.

Spalding Foot and Leg Attachment

This provides a local exerciser for all muscles of the leg. As such it is an excellent device for strengthening weak muscles, toning up others and giving exercise to stiff joints.

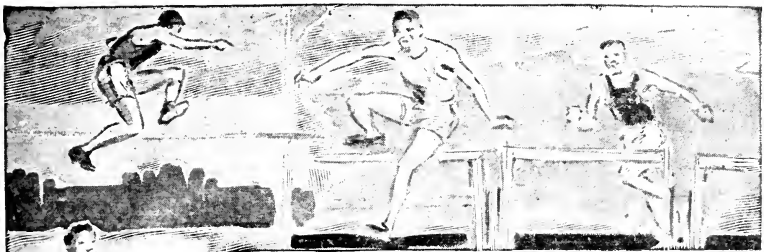


No. 2.. Heavy cowhide. Readily attached to one handle or both; can be worn with or without shoe.

PROMPT ATTENTION GIVEN TO ANY COMMUNICATIONS ADDRESSED TO US

A. G. SPALDING & BROS.
STORES IN ALL LARGE CITIES

FOR COMPLETE LIST OF STORES SEE INSIDE FRONT COVER OF THIS BOOK



IN TRACK AND FIELD SPORTS

Spalding implements are pre-eminent. From the running shoes for Olympic winners to the missiles of weight throwers, Spalding goods are always in evidence when championships are won or records made.

Ruling bodies in track and field athletics certify to Spalding Quality in the recognition of Spalding implements for use in Olympic and championship contests.

Don't be led astray by the false cry of cheapness and "just as good." Remember that superiority in competition is the result of Quality in equipment.

A. G. Spalding & Bros

NEW YORK and all LONDON
CHICAGO large cities in the PARIS
SAN FRANCISCO United States SYDNEY

LIBRARY OF CONGRESS

0 006 010 855 9